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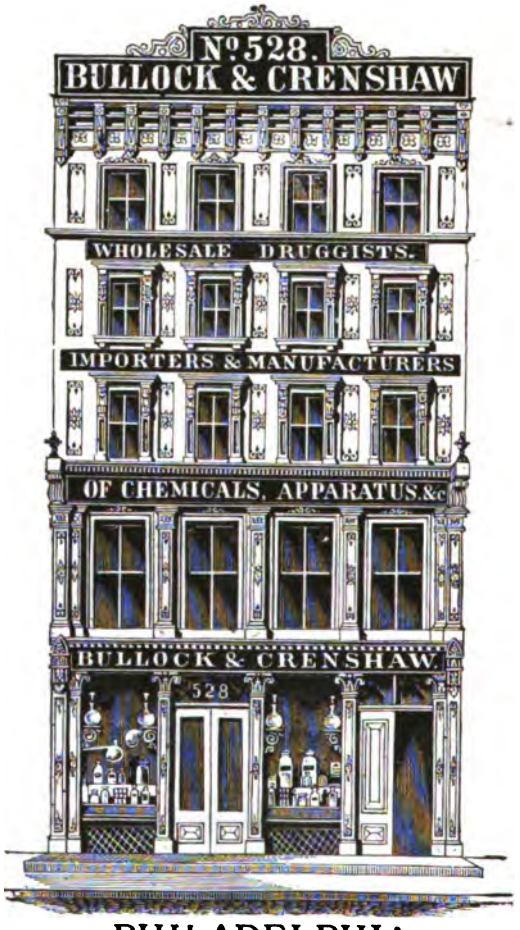

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THE ANTIPHLOGISTIC vs. THE RESTORATIVE TREATMENT OF INFLAMMATIONS.

By EDWARD MONTGOMERY, M. D.

In the November number of this JOURNAL there is an article by Dr. Adolphus which is a continuation of a discussion on the above subject between the Doctor and myself, and, as my opponent only reiterates the same objections and arguments used by him in his former communications, I deemed it unnecessary to prolong the discussion; but, at the solicitation of some of my friends, I will again briefly reply. In my first paper, read before the Missouri State Medical Association, at its meeting in St. Joseph, in April, 1872, and in all my subsequent articles in reply to my reviewer, I took the position that all the old starvation and ultra depleting, and the modern stuffing and stimulating systems were both irrational and unscientific, and unsupported by intelligent observation and clinical experience; that whilst the spoliative and exhaustive treatment of large and frequently repeated venesections, the enormous doses of nauseants, sedatives, and purgatives, and

the starvation system of dietetics were worthy of utter condemnation, the present fashionable practice of the lavish and indiscriminate employment of rich nutrients and alcoholic stimulants in all cases and in all stages of acute diseases, was still more deserving of the censure and contempt of the medical profession. In all my papers I only advocated the antiphlogistic treatment in the early stages of sthenic inflammations occurring in robust subjects, and even in these I advised them to be used with great caution and discrimination, and on the first sign or symptom of the disease assuming a typhoid or asthenic tendency, I urged a prompt recourse to tonics and restoratives. Notwithstanding this conservatism, this careful circumspection, my critic holds me up as a perfect San Grado, an advocate of a murderous, a barbarous, and a spoliative and most dangerous system of therapeutics, as one anxious to resuscitate an obsolete and justly condemned medical doctrine.

It is true that I cited many cases where patients speedily recovered from dangerous and severe attacks of disease after being subjected to repeated bleedings, *coup sur coup*, and after being dosed with enormous quantities of purgatives, nauseants and sedatives; but I did not bring forward these illustrations as worthy of imitation, but to demonstrate the fact that a judicious, moderate and scientific employment of these remedial measures, in appropriate cases, would not be fraught with such dire consequences as expectants, homœopathists and rose-water physicians would have us believe.

But my reviewer whilst dogmatically pronouncing my therapeutics, "murderous," "monstrous," and "dangerous," fails to point out to me the better way; his vague generalization "to put the patient in the most

favorable position for recovery, and to use restoratives and stimulants throughout," may be considered a very short and ready method, but scarcely what should be expected from a good practical physician. How prone are some men to mount a hobby, to run in one groove, be governed by one idea. Guy Patin cured every case by blood-letting, Hamilton by purgatives, and Dr. Adolphus by "restoratives and stimulants throughout."

The Doctor's quotation from Rindfleisch has no bearing whatever on the propriety or impropriety of blood-letting, but on the principles which should guide us in local application of hot or cold substances. If my critic will re-examine my first article, he will see that I am in complete accord with this great histologist in regard to these applications. Rindfleisch says that "a suppression of the exudation is what we should all desire," and in my article I recommended the cold applications in the first stage, to control or circumscribe the exudation, so that my reviewer gives this quotation very unadvisedly for himself, as it is decidedly in favor of my side of the argument. I never advocated antiphlogistics after the destructive processes of inflammation had already taken place; I never prescribed venesection to bring back the "wandering cells;" I never advocated the use of depleting remedies to cure the effects, to remedy the results of inflammatory action; but by the timely, judicious and scientific employment of antiphlogistics, I did think, and I still believe, that I could control, modify, or circumscribe, the *tendency to these effects.* In the initiatory stages of acute inflammations in young and robust subjects, I can not believe that a moderate, and judicious employment of antiphlogistics will debilitate or exhaust the patient; but, on the other hand, I

am firmly convinced, by long and careful clinical experience and observation, that these measures will in such cases give great relief, buoyancy, and elasticity to the sufferer, and put the system in such a favorable condition that our other sanative measures will much more readily exert their happy influence. In sthenic cases of acute inflammation, blood-letting has a wonderful effect in promoting the action of medicine on the system, and yet this most essential property of this measure is totally ignored by our modern restorative doctors. These drawing-room physicians are terribly alarmed at the lancet, or at a drop of blood, but they have no hesitation, no compunctions of conscience, about prescribing a continuous recourse to alcoholic stimulants, whereby thousands following the evil example, and the advice of their physicians, fall into irretrievable habits of besotted intemperance.

Dr. Adolphus may deny that those "in favor of the restorative treatment exclusively," advise this free and frequent use of stimulants; but I appeal to any of their writings on the subject, and it will be seen that they tell us that it is of little avail unless we keep repeating the dose at certain intervals. One of the ablest advocates of the stimulating treatment, Dr. Jürgensen, of Kiel, in the last number of your JOURNAL, says "that a maximum boundary for stimulants must not exist; that, when the weaker are inefficient, you must employ the stronger, and increase the dose if necessary; perseverance only leads to glory." * * * *

"Sometimes we see wonders from hot grog, one or two parts of cognac, rum, or even whisky, to one part water; of this I give one or several tablespoonfuls every ten minutes. But here, too, the effect is not last-

ing; you have to continue in order to keep its effects alive." This perseverance, this continuous dosing with alcoholic stimulants will soon generate in the patient an unsatiable desire for them, and their frequent use renders the system so tolerant of their influence that the dose must be rapidly increased, so that what at first may have been a remedy, soon becomes a cause of disease; and, as Professor Jürgensen admits, the organs thus excited to action, soon becomes tired out and fatigued until they cease to respond even to the strongest stimulants. Aside from the Professor's inordinate employment of stimulants, his treatment of pneumonia is not altogether antagonistic to antiphlogistics, for in the early stages he endeavors to lower fever heat and circumscribe exudation by the cold bath and large doses of quinine, and only administers alcoholic stimulants when the heart's action shows signs of debility. He seems to think that the œdema of the lungs, and subsequent dangerous complications, arise from want of power in the right ventricle to propel its accumulated amount of blood, and that by stimulants "the oats and the whip" are both furnished to the circulatory and respiratory organs, and the œdema is forcibly cleared away. He admits that venesection, by removing the engorgement, will promptly accomplish what is desired, but that speedily the same conditions will return, and the venesections will have to be repeated so often, that the patient will succumb to the drain of the vital fluid. Now we submit that if the proper remedies are employed after the first venesection, this operation will very seldom require to be repeated; and it is certainly more reasonable to suppose that the pulmonary œdema can be more easily obviated by bleeding, by calomel,

opium, etc., than by making a force pump of the heart. I have entered into this digression because my reviewer calls up the German schools as witnesses against all antiphlogistic treatment. I admit that a great many of the professors in the medical colleges of Berlin, Leipsig, Jena, Heidelberg, Vienna, etc., are opposed to any active system of therapeutics whatever. When visiting those schools last summer, I was surprised and vexed at the almost total neglect of therapeutics. I saw the patients most studiously and carefully examined; the pulse, the respiration, and the heart sounds, noted; the urine tested; auscultation, palpation, thermometry, and every other means employed to make out the exact state and condition, and then the patient was dismissed without any active means being recommended for the mitigation or cure of his disease. I could not resist the, perhaps, uncharitable suspicion, that in some of the hospital wards, so little effort was manifested for the cure of the patients that their demise would not be much regretted so as to afford proof positive of the diagnosis. Indeed I was informed by English and American students that there was so much attention given to the natural history of disease, to physiology, pathology, histology, post mortem revelations and pathological changes, that anything like active therapeutics was entirely ignored. A mere passive expectancy or, at most, a restorative treatment was all that was essayed, and I was compelled to believe that, if the learned theories of the professors would be sustained and their diagnosis verified, it was of minor consideration whether the patients died or recovered. When attending the clinics of Prof. Bamberger, Skoda's successor, in Vienna, I saw cases of pulmonary disease most leisurely and scientifically exam-

ined, the stethoscope, the laryngoscope, the sphygmograph, and the thermometer, all brought into requisition, and a most accurate diagnosis made out, and the patients dismissed to die, or linger out a miserable existence, to fall at last by that fell destroyer, pulmonary consumption. Indeed, I was told that most of their pneumonic cases there terminated in this way, so that the malady has been popularly called the MORBUS VIENNENSIS. The German schools stand deservedly high in pathological, physiological, histological, and chemical research; their scientific investigations and experiments are carried on with great industry and perseverance, and for any person desirous of becoming an expert in any of the specialities of the profession, these schools stand unrivaled, but they are immeasurably behind the schools of the British Isles and of this country in therapeutics; it is therefore very natural that they should be classed with those who are opposed to an antiphlogistic treatment.

Dr. Adolphus, in his efforts to make blood-letting odious, asserts "that the murderous results of the antiphlogistic treatment were first made known by men engaged in practicing among well-to-do people;" when it is notorious that Tod and Bennett, Skoda and Louis, making their observations on the impoverished and dilapidated inmates of the hospitals of London, Edinburg, Vienna and Paris, were the first to discountenance a heroic antiphlogistic, and to recommend a moderately sustaining or restorative, system of treatment. But even these men with these poor, half-starved, dissipated patients, did not, like my critic, denounce all depleting measures. Prof. Bennett, who has done more than any other man to popularize the restorative,

and cast odium on the antiphlogistic, practice, advocated the moderate abstraction of blood, and the administration of calomel, tartar emetic, colchicum and other antiphlogistics in certain cases. Neither Bennet nor Louis, Stokes nor Trousseau, nor any of the others mentioned by my reviewer, ever condemned the cautious and judicious use of depletives in appropriate cases; nor did they, like Dr. Adolphus, show themselves so visionary and impracticable as to indiscriminately advocate "a stimulant and restorative treatment throughout." But the Doctor is so anxious to array great schools and great names on his side, that he is thankful for very small favors: he says that "Louis soon found that the reduction of inflammatory products was in no way affected by phlebotomy; and Gull in one of his first papers showed that there was no reliance to be placed upon it." Now I can readily believe that neither Louis nor Gull, nor any other well-informed physician, would be so ignorant, or stupid, as to think that inflammatory *products* could be beneficially affected by phlebotomy; but I will venture to affirm that Louis and Gull, Jones and Stokes, and all experienced practitioners, would admit that timely phlebotomy judiciously employed in appropriate cases would affect, and most favorably, the *tendency* of the inflammatory action. None of the advocates of blood-letting believe that it will call back the wandering cells, remove the exudation, or ameliorate the purulent infiltration, but they do believe that its early and judicious employment, in suitable cases, will counteract, modify, or control the *diseased action tending to these results;* and this doctrine has been held by the great, the wise, and the good, of our profession for hundreds of years.

My critic still insists that pneumonia is a very harmless disease, and that, if not aggravated by the antiphlogistic treatment, ninety-five per cent. would get well: and when I expose the utter fallacy of this assertion by pointing out the great mortality from this disease in all the cities of the United States, where his boasted restorative treatment is so popular, he endeavors to evade my proofs by saying that most of the fatal cases occur in children. Now this is a begging of the question, for if the mortuary reports of New York, Philadelphia, Brooklyn, Boston, Chicago, or St. Louis, be examined, it will be found that with the exception of phthisis, pneumonia is the most fatal disease in the catalogue, and no one will question the fact that a great many of the cases registered as pulmonary consumption were originally cases of pneumonia; and I will go further, and say that many of those cases of pneumonitis ending in pulmonary consumption were impelled in that direction by a "stimulating or restorative treatment, exclusively."

My reviewer refers to a table of cases treated by Dr. Seibert, of Berlin, wherein it appears that of 246 cases treated with "quinine, carbonate of ammonia, veratrum viride, wine, nutrients, and occasional blisters," only about six per cent. proved fatal. Surely the Doctor must see that this report of Dr. Seibert is as favorable to my side of the question as to his, for if he will re-examine my first paper on the antiphlogistic treatment he will see that quinine, carbonate of ammonia, veratrum viride and blisters were favorite remedies with me: indeed, I have no doubt, that with the same cases my treatment would be precisely the same as that pursued by the Berlin physician. In my first rejoinder to my

critic's first paper, I think I fully demonstrated that statistics had not, as yet, been sufficiently elaborated to absolutely prove the superiority of any one system of therapeutics over another; the natural history of disease has not been studied on a sufficiently extensive scale to prove that an expectant treatment is as successful as any other, and the statistics of the different advocates of the several schools do not contain a sufficient number of cases, or cover a sufficient length of time to warrant any definite conclusion. The numerical tables brought forward by the Doctor are a little too rose-colored to inspire profound respect. When we see glowing statistics like those presented by my reviewer, where of forty, sixty, and ninety cases of pneumonia occurring in the private practice of A., B. and C., in little towns in the State of Indiana in one year, nearly all were cured by the restorative treatment, it is, to say the least, rather extraordinary. I hope I may be excused for doubting the genuineness of these statistics. It would require faith sufficient to remove mountains, to believe that one physician, in one year, treated seventy-two cases of pneumonia in a small town in Indiana, and cured them all but two! It is just possible that these were not all cases of genuine pneumonia, or, if they were, that a pandemic wave of most harmless and innocuous disease of the lungs, must have swept over that rural district in the year of Grace 1870. My reviewer finds fault with my caution and discrimination in the employment of the antiphlogistic treatment; he says I am inconsistent and heterodox in this, for if there is no danger in the treatment why caution against it. Now the only caution that I am aware of urging in this regard is, the necessary one which obtains

with regard to all systems of treatment, not to employ it in unsuitable cases, and not to push it beyond the bounds of its usefulness. If we were to give up and condemn every remedial measure, merely because caution or circumspection is necessary in its application, we should be obliged to abandon every good and efficient remedy we possess. When my critic in a former communication bestowed such lavish enconiums on the virtues of veratrum viride, if he had accompanied his panegyric with some words of caution he would not have been considered either heterodox or inconsistent by any sensible practitioner; and even when he so boldly advocates the free and indiscriminate use of stimulants in all stages of pneumonia, a few grains of caution might be safely mingled with the self-complacent dicta.

"There are none more blind than those who do not wish to see," therefore the Doctor fails to recognize or appreciate the prompt and happy results of venesection and purgation in the case of encephalitis which I cited in my last communication. The patient was delirious and had convulsions every hour for a whole night; was seized with a violent paroxysm while I was bleeding him, but as soon as he lost a large amount of blood and was purged, his convulsions immediately ceased, consciousness gradually returned, and a speedy and perfect recovery ensued. The other two old experienced physicians who saw the case with me, and coincided with me in regard to its nature and treatment, must also succumb to the superior judgment of my critic, and believe with him that it was only "a perturbation of the nervous system which would have passed away without any active treatment whatever." A great majority of experienced practitioners whose knowledge of pathology

and therapeutics is not altogether confined to their library, will be inclined to the opinion, that if active antiphlogistic treatment had been earlier resorted to there would have been fewer convulsions, and the patient would have made a speedier recovery. The dreamy theorist, the transcendental scientist, and the devotee of fashion, may laud aud extol "a restorative and stimulating treatment throughout" in every case; but the conscientious physician, whose knowledge and judgment have been matured at the bedside, will repudiate an unvarying rose-colored routine of therapeutics, and will treat every case on its own merits, using antiphlogistics or restoratives, tonics or depletives, according to the indications presented.

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MAN IN GEOLOGY, IN ZOOLOGY, AND IN PSYCHOLOGY.

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The Earth is but a microcosm. This orb, freighted with life, forms, and conditions, presents to the mind of man for observation and examination an endless variety of phenomena. These phenomena are all normal results of efficient causes; else, we would have no clue to their solution, and had been doomed to total and helpless ignorance. Thus, a man with a pulse beating 72 times in a minute, and 16 regular respiratory processes in the same time, could not take these phenomena

as evidences of health. Moraines, boulders, and parallel grooves in submarine rocks, and in the cliffs of Glen Roy, Scotland, would not present to us the evidences of glacial action.

But the laws of nature are immutable: cause and effect are inseparable; no particle of matter is exempt from them. Then, to examine and comprehend all the forms, conditions, and properties of our material, aërial, and ethereal surroundings, though as easy as talking prose, is called scientific research, and the knowledge thus gained is called Science.

Thus, if we study the movements of the Earth, and its relation to other planets, it is called Astronomy; if the form of the Earth's crust and the positions of its strata, it is called Geology; if its elements, and their properties, it is called Chemistry; if the causes of material phenomena, it is called Natural Philosophy; if the classification of animals, it is called Zoology; if we study their structure, it is Anatomy, and if we study man's mental and spiritual nature, it is called Psychology.

The investigation of the present subject, as far as it pertains to our Earth, can proceed only by importuning the allied sciences of Geology and Chemistry. The former elucidates the position of matter, and the laws governing its locality; the latter has to do with the composition, and the laws governing the properties of matter. In geology we examine cosmological masses; in chemistry we experiment with elements, molecules, and atoms. By their minuteness and grandeur they comprehend the material universe.

It was about the same time, and near the close of the last century that these two sciences began to be under-

stood. We owe much to Rey, Lavoisier, and Geol, for our knowledge of the three important principles in chemistry—oxidation, definite proportions, and the union of chemical and electrical laws. Coincidently, geology was being taught in England by Smith; in France by Buffon; in Scotland by Hutton; and in Germany by Werner. The first two reasoned inductively, the latter two deductively, hence, as I conceive, their errors, as geology is eminently an introductive science, in this, that we observe first the effects, and reason down, or back to the causes. But reasoning deductively, Werner referred all the changes, through which the crust of the earth had passed, to water; while Hutton referred them all to fire. Clearly these changes are the effects of cause, some of which are aqueous, and others igneous.

In 1807, the Geological Society of London was formed, and a quarter of a century afterwards followed the very able works of Lyell and Murchison, which placed geology on a substantial scientific basis.

Sir Charles Lyell was the first to conceive the idea of classifying the tertiary strata with reference to the ages of fossilized shells, and naming them in this order, beginning with the newest or last formed:—Recent, Post-pliocene, Pliocene, Miocene, Eocene, and still proceeding downward, the strata are named in this order until we come to the lowest. Cretaceous, Jurassic, Triassic, Permian, Carboniferous, Devonian, Silurian, Cambrian; and since that we have now the Laurentian and Azoic.

Now one of the most superficial, or recent, formations is the Danish peat mosses, found in Denmark, and which varies from ten to thirty feet in thickness. In this Lyell

says, at various depths are found the trunks of trees, and especially the Scotch fir (*Pinus sylvestris*) (?) as much as three feet in diameter. This tree is not now, and has not in the range of history been a native of those islands, and will not grow there now when transplanted. But they grew there within the human period, for Steenstrup found and removed with his own hands, a flint instrument from beneath the trunk of one of those pines.

The Scotch fir tree, now extinct in that region, was followed by several species of oak (*Quercus*) appearing successively at the higher levels in the peat, and these in turn have been almost entirely supplanted by the beech, which has been indigenous to that locality as far back in time as history extends.

And yet, all the land and fresh water shells, and all the mammalia found in Danish peat are of recent species. So we can begin to learn something of the age of a species.

The great antiquity of man is further attested by the chronological succession of materials used for making implements, and by the rude character of the utensils. These periods are called successively the ages of stone, of bronze and of iron. The age of stone as we have seen by the flint implement found under the trunk of the fir tree, coincides with the period of the first vegetation in Denmark. The age of stone was succeeded by the age of bronze, about the time the fir tree was supplanted by the oak in that region. These two ages had passed and were succeeded by the iron age, and the beech tree before history began.

Flint implements were recently found near the Seine, in the vicinity of Paris, imbedded in gray diluvium,

twenty feet below the surface. In the cavern of Arcy-sur-Youne human bones have been found with the bones of extinct quadrupeds. Flint tools have been found imbedded with the bones of the rhinoceros and the hyena, thirty feet deep in gravel resting on the chalk at Abbeville, Amiens, and other points along the valley of the Somme.

In a cave near Torquay, called Kent Hole, the bones of an extinct mammoth, and flint tools of a very antique type were found mingled together in a stratum, above these were human remains, all in a matrix of red loam and covered with stalagmite. In the Brixham limestone are caverns in which were found in a floor of stalagmite the humerus of the Ursus spelæus (cave bear), and under it various flint implements; there, again, it is clear that man lived before the cave bear which is now extinct. On the banks of the Meuse are the caverns of Engi and Engihoul both containing the bones of man and of various extinct species or animals.

Many more evidences of the immense antiquity of man might be adduced, but already enough, I think, has been presented to show that he has outstripped most of the species of animals in the race of life, that came into existence with him. Geology, and palæontology have taught us that man far antedates history, and was cotemporary with many species of animals known only by their fossils. That he roamed along the banks of the Somme, Thames, Clyde, Rhine, Seine, Mississippi and the Po, and scattered stones rudely fabricated by his hands into utensils, as early as the pliocene period, and when the beds of those rivers were 100 feet, and some

of them 1000 feet above their present level there is no reasonable doubt.

The great and various depths at which stone tools have been found in the same locality, shows that the stone period was vast ages in duration. Finally man became enough enlightened to work copper and tin into bronze, and this metal was used for making weapons at a time anterior to the founding of the Roman Empire.

Geologists calculate that it required 30,000 years for the peat in the valley of the Somme to grow, yet under this, and resting on the chalk is a strata of gravel containing stone implements. Five canoes were found twenty feet deep under the principal streets of Glasgow: evidently that ancient city stands on ground which in pre-historic times was the bed of the Clyde. In the valley of the Nile a brick was found at a depth of 60 feet, with the name of the Egyptian god Amen Ra, inscribed upon it. Another brick bat was found in the Delta which, according to Lyell, must have been burned 30,000 years ago.

Let us come nearer home and we find in the valleys of the Mississippi and Ohio Rivers numerous monuments, mounds, and kitchen-middens with various other geological and palæontological evidences which indicate that many years ago, this country was inhabited by a preceding, and better informed people than the Indians whom we call aborigines.

Still further back in time, still deeper in the earth's crust, are strata, or rather beds of fossil shells mingled with sand which represent the older and newer pliocene periods. In England these beds are called crags, proceeding downwards they are named in this order: Norwich, red, and coralline. The last named crag being the

oldest, its formation may date as far back as the miocene period. Certain it is that it is formed of shells of a southern species of testacea, and tells of a warm period preceding the glaciation. The red and Norwich crags are composed of shells indicating a lower temperature.

These crags in places rest upon the chalk, and are on a level with the subterranean forest of Cromer, in which the stumps of large trees are standing as they grew hundreds of thousands of years ago; interspersed too, with mammalian remains. Next above this are boulder, clay and erratics some of which are 80 feet thick, carried there by ice-bergs during the glacial peroid. Next, glacial drift, then strata of gravel, and next the surface of the earth with soil and vegetation.

It may be instructive to the student of geology to know that the chalk strata referred to are in many places 1,000 feet thick, and composed of fossils of marine infusoria, proving that all the region of its extent which embraces most of Europe, Asia, and North America, was millions of years ago an ocean. Beneath this still is stratified rock more than twelve miles thick, and yet fauna and flora, that is, the remains of animals and plants exist still below this.

Now, more of the glacial period to which allusion has been made. Glacial is from the Latin *glacies*, which means ice.

There have been evidently three glacial periods in which all of the frigid and temperate zones have been enveloped in seas of ice. The first of these glacial periods probably came about 240,000 years ago, and the whole time of their duration could not have been less than 160,000 years. During the first of these periods

the land was upheaved so that the mountains were higher than they are now. In the second period a submergence came, so that according to Prof. Ramsay, the land was 2,300 feet lower than it is now. Then the tops of the mountains peered from the ice-clad ocean as clusters of small islands, presenting the appearance of an archipelago, and lastly the boulder drift was dredged out of the valleys by glaciers.

The chain of mountains called the Jura now presents many moraines and polished rocks, which, according to the high authority of Lyell, were transported by glaciers from the Alps fifty miles across the great valley of Switzerland. The same authority states that glaciers have carried granite from the Andes to the island of Chiloe which is twenty-five from, and extends one hundred miles parallel with the coast of Chili, and that both the island and the Andes are undergoing a gradual upheaval. Thus, the Andes may rival the Alps, and the island of Chiloe may in time become higher than the Jura. The same process may in time fill up the channel between Chiloe and the shore, so as to form a valley just as the valley of Switzerland was formed. These gradual upheavals and recessions of the earth's surface are doubtless due to volcanic action, or to the alternations of heat and cold.

Now observe the following deductions from the foregoing authentic premises. It must require a vast lapse of time for any animal species to become extinct. It is certain that man co-existed with some of the extinct mammals. Further, the animals having the lowest organizations are most persistent in their type, and therefore the life of any species of testacea is longer than that of the higher orders, and yet two-thirds of the faunas of the miocene period are extinct. Molluscous faunas

have not been perceptibly changed since the glacial period, and yet, the fossils and works of man have been found in the same matrix with extinct molluscous faunas. Conclusively, then, man must have inhabited the earth for an immense lapse of ages.

Now briefly, and in order, I desire to examine man in his zoölogical relations. In my treatise on General Pathology, which was written in 1866, and before "The Origin of Species," by Charles Darwin, appeared, at page 11, I used this language: "Organization is not limited in development by the arbitrary classification of species. The classification of organic bodies into species, is convenient as expressing a general idea of their degree of organization; but it is far from definitive. It is a common error to suppose that all or any species of plants or animals are equal in organization. There are various degrees of organization in the human species, and so of all the species of the lower animals and plants." The various species marked upon the ascending scale of the organic series are not so many permanent types, but evidently the results of transmutation.

The lowest species of man is anatomically and zoölogically further below his cognate superior than he is above the chimpanzee, gorilla, ape and lemur. In former times naturalists classed all the last named animals as quadrumanous; that is, having four hands instead of two hands and two feet, as man has, but in truth they, like man, are biped, and bimanous, possessing two feet and two hands.

Huxley has shown that their feet are precisely like man's, as well as their hands, and compared with hands, possess the following distinctive characteristics: "1, The arrangement of the tarsal bones; 2, By having a

short flexor, and a short extensor muscle of the digits; 3, By possessing the muscle termed peronæous longus." They all possess thirty-two teeth as man does, except the lemurs. American apes have thirty-six teeth, and in this they are a grade lower than the oriental species. The orang is further below the gorilla than the latter is below man. When man and the primates were found to be constructed homologously, muscle for muscle and bone for bone, and that some of them, as the chimpanzee, possess anatomically complete hands and feet as we do, it was urged by Owen and others that cerebral differences exist, which present a lasting hiatus between the genus homo and all the Simian family. I see no use in so much dodging a most probable ancestral line, and prating about a traditional, or a fabulous genealogy. Better for us, if our ancestral lineage is from the cryptogamia up to our present development, than that we have degenerated down, and are still on the retrograde move from the image of God.

The supposed peculiar cerebral structure suggested as characterizing man alone, is this: That the posterior cornua of the ventricles, and the small "hippocampi" of the cerebral hemispheres are long, and that these hemispheres overlap the cerebellum and the olfactory lobes.

Now, Lyell says there is a remarkable resemblance between the chimpanzee brain and that of the human in everything but in size. M. Gratiolet, the very highest authority on the subject, says: "The convoluted brain of man and the smooth brain of the marmoset resemble each other by the quadruple character of a rudimentary olfactory lobe, a posterior lobe completely covering the cerebellum, a well-defined fissure of Sylvius, and lastly,

a posterior horn in the lateral ventricle. These characters are not met with together, except in man and the apes."

Since the brain in the higher animals is found to correspond in all its parts with the human brain, it remains to notice that from the lowest ape to the best organized human, the cranial capacity is found to increase gradually, and not in an abrupt manner, as if nature had suddenly become lavish in her bestowal upon the grade of animals called human. Thus, the lowest ape has a cranial capacity of 25 cubic inches; that of the highest 35 inches. The lowest race of men 62 inches, but there are individual examples below this, while the highest cranial capacity is 114 cubic inches. Hence, we see that the absolute difference between the largest and smallest human brain is much greater than that between the smallest human brain and that of the gorilla. Conclusively, the ape was made in the image of man, or he attained his form by progressive development.

Psychologically, man is to the lower animals precisely what is indicated by his zoölogical relations. Zoölogically, man has the exact organization of the primates, but in a higher degree. Psychologically, man and the lower animals have the same mental attributes, but man possesses them in a higher degree, because of his higher physical organization.

It has just been shown that the ape possesses every cerebral structure in exact correspondence with man; then, as the brain is the organ of the mind, it follows that every function possessed by either brain is possessed by the other, precisely in kind, but not necessarily in degree.

SYNOPSIS OF REMARKS BEFORE THE ST. LOUIS MEDICAL SOCIETY, ON HYSTERIA AND SPINAL IRRITATION.

By C. H. HUGHES, M. D., St. Louis.

Hysteria is a disease peculiarly, but not exclusively confined, to the female constitution. It always manifests itself in that excitable nervous organization not common to the male. Notwithstanding the views of the older writers who considered it a uterine disease, the later and best authorities agree that it is not necessarily dependent upon uterine irritation for its existence, and hence that the male constitution is not incompatible with its presence, and that it is, at times, really observable in men and boys.

It is also quite frequently seen in girls before the accession of the catamenia and disappears sometimes upon the establishment of regular and complete menstruation. It is often found to exist in women after the close of the menstrual climacterix, and at other times in the life of woman, where there has existed no marked evidence of uterine derangement. With peculiar facilities for observing the neuroses for many years, especially when they have culminated in almost the profoundest lesion to which the nervous system is liable—that of insanity—I have more than once seen an aggregation of symptoms occurring in male patients which I could characterize by no other name than hysteria. I have also been enabled to confirm the observation of others in regard to its existence in old women after they had ceased to menstruate. I have seen hysterical

insanity in such cases, though it is not uncommon for hysterical insanity to recover after the permanent establishment of the change of life. I believe these cases always get well after the permanent cessation of the catamenia, where the hysteria depends solely upon irritation of the spinal ganglia, and cerebral lobes transmitted from a diseased uterus, and uterine disease does not persist after uterine function ceases.

The insanity disappears if the cerebral lesion be only a reflected (or what I consider a more expressive term) a *transmitted* irritation, along with the departure of all the hysterical symptoms. If the brain disorder be more profound than that which involves the spinal nervous system, insanity will remain after the subsidence of the hysteria, but not manifesting itself in the hysterical form.

Disease in an organ distant from the brain is not an uncommon excitant of cerebral derangement, but where the cerebral disorder persists after the exciting cause has ceased, other causes are connected with the continuance of the brain lesion. The most common is an inherited tendency on the part of the cerebral cells to degeneracy and hence to take on morbid action.

This is the inherited insane neurosis. Its existence is much more common in our race than writers on general pathology have admitted, and it is yet destined to explain many things connected with disease of the nervous system, not now fully comprehended by the profession.

The fact that derangement of the uterus is the most common cause of that cerebro-spinal irritation which gives rise to the phenomena of hysteria and hysterical insanity, enables us to prognosticate with tolerable cer-

tainly amelioration or recovery of the mental disease after the change of life is established in women, and in hysterical men after the age when the activity of the emotional nature diminishes, and impressions made upon the cerebro-spinal nervous system are less vivid and excite less disturbance among the cells of the brain than in earlier life.

To discuss hysteria is to consider the whole nervous system, for hysteria is an involvement, though seldom very profound, of the cerebro-spinal and ganglionic centers. It acts the part of a caricaturist of the nervous symptoms of all diseases, especially in the female; so much so that the skillful diagnostician is constantly on his guard against the deceptions of this Protean pathological deceiver.

It is only when the cord, the brain, or nutrition remains impaired, after the paroxysm has passed off, that the skillful physician is concerned for the future safety of his patient.

He is unmoved by the weeping and sobbing of his patient, and may smile at her hysterical laugh. Her pain does not frighten him, nor her comatose appearance. Her fixed pupil—dilated or contracted—does not alarm him, neither do her spasmodic symptoms; her contortions of body, limb or face. He does not propose tracheotomy, or laryngotomy, because her face grows livid for want of air, for he knows she will soon want it worse and then she will be bad enough to relieve herself. His equanimity is not disturbed by her syngultus, syncope, or gastric or intestinal irritation. The tender liver, spine and abdomen, the scanty or profuse urine, are all familiar to him and he does not seek for counsel lest his patient should die on his hands.

The attitude and symptoms of the patient may be suggestive of spinal meningitis, or the delirium of the mind may be suggestive of mania to the novice, but still amid all this tumult, the stoical physician remains unmoved, and to such an extent, sometimes, that sympathetic friends think of substituting some more feeling and appreciative medical attendant.

It is usually at this juncture that the doctor decides upon and executes a bold *coup de main* with a dash of the water cure in it and, pre-occupying the nerve centers—voluntary and involuntary—for the time, puts an effectual damper upon the hysterical manifestations, and the play of that paroxysm is postponed, at least for a season.

The face of the hysterical patient generally assures the physician that there is not much danger.

It does not indicate profound disease, and the aggregate of the symptoms is usually too great, and the accession of the symptoms too sudden, to proceed from deep-seated lesions of all the organs which appear to be implicated in hysteria.

A degree of disease such as hysteria appears to reveal in so many vital organs at once, if real, would be incompatible with life.

As a disease of the general system hysteria is a deception overdone. Yet it is really a disease of that system which presides over the functions of the whole animal economy, and is sometimes co-existent with very important structural change.

It may generally be regarded as the most superficial, and at the same time the most general of the neuroses, and the paroxysms are usually due to external, or peripheral and transmitted irritation, beginning either in a

mental emotion excited by any of the innumerable influences which operate upon the mind and brain from without, or in a ganglionic impression resulting from disease or irritation of a physical organ, or the disease of the spine itself may be sufficiently extensive to originate the paroxysm, but in such cases we would be likely to have some of the recognized structural lesions of the spinal cord and a persistence of the paroxysms with remissions rather than intermissions.

I do not regard hysteria as a disease of the brain or spinal cord exclusively, but a superficial pathological condition which may involve the brain, the cord or all the ganglionic centers, and which does in different degrees often involve them all in the same attack

As for the part the womb plays in hysteria, it is simply the most important organ in the economy of the female, more liable than any other organ of her body to become diseased, and hence the most common source of transmitted irritation; besides menstruation, coition and gestation keep it in a state of almost continual irritation in sedentary females, even when it is not diseased.

Hysteria in its phenomena affords us very satisfactory confirmatory evidence from a pathological standpoint of the physiological truth that there exists a very intimate connection between the voluntary and involuntary nervous systems. It shows how mutually dependent the one system is upon the other, and especially how much the part of the nervous organism, which we are accustomed to call the voluntary, is dependent upon the involuntary.

Its phenomena would seem to lead us to conjecture the unity of origin of the whole class of neuroses just as insanity, which may result from any of the neuroses, would seem to prove the fact.

It is a fact now placed beyond dispute by reliable observation, that any one of the neuroses appearing at any one time of life, or in one generation, may re-appear at a later time in another generation, and *vice versa.*

You may have chorea, hysteria, epilepsy, catalepsy, paralysis, and even neuralgia, developing into insanity in the same individual or in his progeny, and the transmitted lesion which gave rise to all the symptoms of insanity in the parent, may manifest itself in the less grave forms of nervous disturbance, or in the graver form of idiocy according as the influences connected with germination, fœtal and post-fœtal life tend towards the regeneracy or degeneracy of the nerve cells.

I am not alone in this view of the transition of one neurosis into another. Dr. Maudsley, speaking of epilepsy,* says: "The epileptic neurosis is certainly most closely allied to the insane neurosis; and when it exists in its masked form, affecting the mind for some time before convulsions occur, it is hardly possible to distinguish it from one form of the insane neurosis.

"The difficulty of doing so is made greater inasmuch as epilepsy in the parent may engender the insane neurosis in the child, and insanity in the parent, the epileptic neurosis in the child."

I have myself seen a paroxysm of violent maniacal excitement come on at the usual time of an epileptic fit and take the place of it, though it is most common, where epileptic insanity exists, for the paroxysms of maniacal excitement to precede or follow the epileptic fit.

I think Dr. Maudsley beautifully expresses the inter-

*Body and Mind, page 71.

dependence of all the cells of the nervous system upon each other in the following language:* "So certain and intimate is the sympathy between the individual nerve cells in that well organized commonwealth which the nervous system represents, that a local disturbance is soon felt more or less distinctly throughout the whole state.

"With the nervous system the cells are the individuals and, as in the state, so here, there are individuals of higher dignity and lower dignity, but the well-being and power of the higher individuals are dependent upon the well-being of the humbler workers in the spinal cord."

And he concludes his chapter on the spinal cord with a statement of the fact that "nature sometimes unquestionably makes morbid action of the cells of the cerebral hemispheres vicarious of the morbid action of the spinal cells." The researches of physiology, and all the facts we are cognizant of relative to the pathology of the nervous system, including the subject of hysteria and spinal irritation, are confirmatory of this view.

Dr. Blandford, in speaking of the causes of insanity, says, "Though the parents may not have been insane they may have been the subjects of neuroses which in their progeny become insanity; they may have been chronic drunkards, epileptics, hypochondriacs, or have indicated their nervous condition by chorea, stammering and the like. The reverse of this is also true—insane parents, either or both, may have a number of children, some insane, others idiots, others epileptics, deaf mutes, or nervous, and some perfectly sane and sound."

*Phys. and Path. of Mind, page 83.

This is the common experience of all medical observers who are practically familiar with the neuroses in their aggravated forms as they are daily seen in our hospital for the treatment of the insane.

Dr. Maudsley, after alluding to Morel as the first to indicate the insane temperament, and sketching what he considers to be its general features, observes that "the cause of such fault is not insanity alone in the parent, but may be other nervous disease, such as hysteria, epilepsy, alcoholism, paralysis, and neuralgia of all kinds. Except in the case of suicidal insanity, it is not usual for the parent to transmit to the child the particular form of mental derangement from which he has suffered."

The morbid conditions which affect the motor nerve centers in one generation seem to concentrate themselves sometimes upon the sensory or ideatinal centres in another. In truth, nervous disease is a veritable Proteus, disappearing in one form to re-appear in another, etc."

Diseases of the spinal cord and brain are not only oftentimes vicarious of each other, but they are oftentimes continuous one into the other. They are often the same enemy of health, invading the system at one place and traversing to the other before leaving, and often attacking all along the line of the cerebro-spinal axis at the same time.

Thus myeletis and softening of the brain may exist simultaneously. Spinal meningitis is quite as often inflammation of the cerebro-spinal meninges as of the membranes of the spinal cord alone, and hysteria quite as often involves the brain as the spinal cord.

"When any serious degeneration of the ganglionic cells of the cord exists, there is an indisposition to

carry out, as subordinate agents, the commands which come from above." In hysteria there exists a manifest indisposition or inability on the part of the brain to control the irregular nervous agitation. The semi-conscious mind and semi-dormant will require an extraordinary stimulus to call them into proper action. Like the jaded horse induced to make an additional effort by the stimulus of the lash, so the brain, by a similar stimulus which does not convey force, but only calls out latent power, may be induced to exert its usual "inhibitory power over the nervous centers that lie below it," and to quell the riot among the involuntary cells playing the morbid hysterical farce in the column beneath.

The same kind of temporary cerebral atony, apathy, abeyance or paralysis (call it what you will) exists in hysteria, as exists in chorea or epilepsy, though vastly different in degree.

In the former a violent douche or other powerful shock to the mind suffices to bring back its controlling influence over the involuntary system, whilst the spasms of chorea and the convulsions of epilepsy proceed from a degree of instability of nerve-element so profound that no effort of the will, however well educated to the exercise of the restraining power preceding the attacks, will avail to prevent them, and no power that we can command will at once arouse the mind into effective consciousness, or the will into action, during a paroxysm, though the return of consciousness may be facilitated by the physican sometimes.

As Maudsley, whose manner of expression is always happy, expresses it, "it would be as equally absurd to preach control to the spasms of chorea or restraint to the convulsions of epilepsy, as to preach moderation to the east-wind or gentleness to the hurricane."

But it is impossible in epilepsy and chorea to arrest the spasmodic and convulsive action, and why is the usual restraining power of the brain in abeyance except when called into activity by powerful stimulation from without in hysteria? And why the subdued suspended consciousness?

I can only explain it upon the presumption that the disease which implicates the spinal cord has touched the head of the column so that the brain is morbidly implicated.

Function proceeds from structure. Healthy function from healthy structure, and morbid function from diseased structure.

When the brain ceases to exert its customary influence, as in hysteria, over actions which it usually controls, I infer that it too, must be crippled, and here let me quote again from Dr. Maudsley, who, in order to prove a different proposition, proceeds as follows:*

"The severance of the connection between the brain and the ganglionic cells of the spinal cord seems in some degree to affect their function."

When a nerve is cut across in the living body, the peripheral end soon undergoes fatty degeneration, while the central end remains unchanged after years; and this degeneration is not owing solely to the inactivity of the nerve, for it still takes place when the nerve is regularly stimulated, and takes place much less quickly in frogs and cold-blooded animals, than in warm-blooded animals.

After apoplexy in and about the corpus striatum, Turck professes to have found granular cells in the

* Physiology and Pathology of Mind, page 82.

course of the fibres as they pass downwards, so that such cells were met with in the spinal cord on the opposite side of the disease.

It is known, too, that the removal of the brain in lower animals increases the ease with which reflex movements take place, and there are many cases on record in which the reflex action has been increased in man when disease or injury has interrupted the continuity of the spinal centres with the brain.

May we not then conclude from such facts, that a positive influence is exercised by the brain upon the nutrition of the ganglionic cells of the cord, and the nerve-fibres which proceed from the cerebro-spinal axis. The inference would be agreeable to what we know of the direct influence of the functional action of the brain upon that of the cord; the reflex acts being in health notably for the most part subordinate to the control of the will. As a guiding influence passes from above downwards when the cerebro-spinal system is ministering to the functions of animal life; so it is not improbable that the brain, in the accomplishment of its function as an organ of organic life, exerts some power which is favorable to the nutrition of the parts which lie below it."

If this view of the relationship between the brain and spinal cord be the correct one, even admitting that Maudsley is incorrect in his conjecture respecting the influence of the brain over the nutrition of the cord, I see no reason why we should not consider the brain morbidly involved in hysteria as well as the spinal cord.

My friend, Dr. Henry Landor, Medical Superintendent of the London Ontario Asylum, in Canada, in an interesting paper entitled "Hysteria in Children

Contrasted with Mania," read before the Association of Medical Superintendents of American Asylums for the Insane, at its last meeting in Baltimore, in June of the present year, maintains that there is an essential difference in the morbid condition which develops mania and hysteria. Dr. Gray of the Utica Asylum, New York, denies the existence of any distinctive difference, in the twodiseases, and these views *pro* and *con* are maintained by other able physicians who make nervous diseases a special study.

Now I agree with Dr. Landor, that there exists sufficient difference in the symptomatic manifestations to enable us to determine hysterical from other forms of insanity, and Dr. Landor and every other observer will agree me that the brain is involved in deranged functional action.

He puts the case thus: "In hysteria there is often obvious cause for the mental irritability either in disease or in altered function or in irritating substances elsewhere than in the brain; mania exists without such obvious causes, although it often accompanies poor blood and feeble constitutions. Hysteria may often exist without obvious cause, yet rarely. The action on the brain is irritation, not change, irritation so general as to disturb the sum of the action of the organ.

Now my observation has led me to regard hysteria as often as apparently causeless as insanity, though I do not regard either as really so, and I have also been led to consider insanity as resulting quite as often from diseased action originating without as within the brain. Insanity never manifests itself until the brain itself is morbidly touched. I do not think either the insanity

of hysteria or other form of the disorder can be maintained after the cerebral disease passes off.

It will not do to explain the state of the brain by saying it is in a state of irritation, for morbid irritation is transmitted disease none the less real, I apprehend, because we can not, with the present means at command, detect a morbid lesion in the organ acting morbidly.

From a careful survey of all the phenomena of hysteria, I am forced to include it in that category of neuroses which are kindred to that large class of diseases, whose ultimate destiny either in one generation or another, if unchecked in the individual or his offspring, by influences tending to the repair of the nerve cells, is profound and incurable mania or idiocy, while I also regard the insanity resulting from hysteria in the individual first affected by the latter disorder not transmitted from parents,—as transitory in character, and comparatively not serious in results upon offspring if properly treated and thoroughly cured in the parent in whom it has appeared,—as an original and not inherited neuroses.

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Correspondence.

A FAMILY POISONED PROBABLY BY GREEN TEA.

Mr. L., living in the country three and a half miles from Jacksonville, Illinois, purchased a quantity of *green tea*, with the assurance from the grocer that it was the very best. On re-

turning home, a "drawing" was made from it, for the evening meal. Very soon after supper, father, mother, and child, constituting the family, were taken suddenly ill, with vomiting, purging, and cramps, all having drank freely of the tea—the child being attacked before finishing its meal. Thinking that they would soon be better, assistance was not sent for immediately. At 10, P. M., symptoms growing gradually worse, the father dragged himself to a neighbor's house, one-quarter of a mile distant, to get a messenger to go for medical aid. On my arrival, I found the child better, having sooner and more completely ejected the tea from the stomach; father and mother were still vomiting and purging, diluent drinks were given freely, and hypodermic injections of morphia administered to control vomiting and cramps. All recovered but were quite ill for some days. At my suggestion, as a test, a portion of the tea was given to two dogs; in a short time they were taken with vomiting and purging, one of them, a rat-terrier, it very nearly killed. WM. H. KING, M. D.

[We thank Dr. King for reporting this incident of poisoning. It is quite time the public were cautioned to avoid the use of *colored teas.* To protect the public health by timely warnings against the use of deleterious articles of diet, is not the least of the physician's duties.

Tea merchants should be patronized who deal in *uncolored* and *unadulterated* teas, if the thing is possible. See card under Mortality Report.]

Hospital Reports.

[Surgical Clinic of Prof. A. P. LANKFORD, at the Missouri Medical College.]

Two Amputations in the Thigh; one for "Spindle-cell Sarcoma" of the Leg, the other for Diseased Stump. Both by the modified flap method.

Reported by CHAS. A. TODD, M. D., Adjunct Prof. of Surgery and Lecturer on Diseases of the Ear and Throat.

CASE I. T. Rawlings, aged 24; nativity, United States; no

occupation. December 3d, 1871, a train of cars ran obliquely over the middle of left leg, which was soon after amputated just below the knee. Besides this chief injury, Mr. Rawlings suffered some bruises and considerable shock. Recovery from shock and operation ensued in seven weeks; the stump then being healed with the exception of a central spot about the size of a quarter dollar, which resisted all treatment, and persisted ever after.

In October, 1872, Mr. Rawlings began to have neuralgic pains in the stump, especially at night, being influenced also by changes in the weather. While in bed these pains were relieved by keeping the stump elevated. Gradually the pains became so intolerable as at last to call for surgical interference.

October 21st, 1873, Mr. Rawlings appeared at the clinic of Missouri Medical College for operation. General health good, not at any time having been affected by the local disorder. The stump was not diminished in size. Its lower portion in the region of the gastrocnemii was exquisitely sensitive, and somewhat hyperæmic. The flexor tendons were drawn up so as to bend the knee at an angle of 45°. After examination of the case, Prof. Lankford decided to amputate through the condyles of the femur after the method described at length in the conclusion of this report. The operation being performed, the femur was discovered to be much atrophied, and its medullary cavity to be filled with a gelatinous mass of a dark crimson color. To secure a better stump the bone was sawed off 1¼" inch higher up, at which point a better condition of both bone and marrow was found, *i. e.*, increased thickness of the one, and greater firmness of the other.

The operation proved entirely successful, as the patient was immediately freed from all his former sufferings, and the flaps united without delay, so that in eleven days he was able to move in and out of bed at will, and seventeen days after the operation, to walk with crutches to the college amphitheatre, a distance, including flights of stairs, of about a block.

Examination of the amputated part gave the following results: The muscles below the knee had undergone fatty degeneration—fat appearing in abundance both within and between their fibres. The ligaments and tendons about the joints were considerably atrophied. The nerve stumps presented

bulbous enlargements, "neuroma," that of the internal popliteal being imbedded together with the popliteal vessels, in a mass of cicatricial tissue. The ulcer that persisted at the end of the stump, was underlaid by dense cicatricial tissue. At its line of first section, the compact tissue of the femur measured only $\frac{1}{10}$ inch at its thickest; at the line of second section $1\frac{1}{4}$ inch; higher up, $\frac{1}{8}$ inch. In each case the thinnest parts measured a fraction less. On making a longitudinal section of the bones, a highly interesting condition of the different parts was disclosed. The osseous tissue appeared saturated with fat, its compact portions everywhere greatly reduced in thickness, at places bordering on the articular surface yielding readily to pressure. The Haversian canals were plainly visible to the naked eye and were filled with reddish material. The marrow was quite soft, almost diffluent, and of various shades of red, from bright scarlet to deep, reddish brown. One of the semi-lunar cartilages was slightly injected. Microscopic examination of the marrow discovered; abundance of free fat; fat crystals; marrow cells, some shriveled and empty, others filled with fat of a reddish tinge, which color however may have been due to extra-cellular matter; no red blood-corpuscles were to be found. Sections of the bone under the microscope, showed enlargement of the Haversian canals. The lamellæ of the cancellous tissue towards the medullary cavity, were entirely gone, elsewhere they were for the greater part reduced to mere threads.

All these observations show that the lower part of the femur and the structures below the knee joint, were in the condition of fatty degeneration and undergoing the process of atrophy. Osteoporosis is the name given by Rokitausky to this condition of bone, which he describes as consisting in an enlargement of the Haversian canals and the cells; it may be due to any one of the following three causes, *i. e.:* excessive development of the medulla, or of the tissues occupying its canals and cells, with increase of volume of the affected part; inflammation of the bone and medulla; atrophy.

N. B.—The patient had never used an artificial limb of any kind.

CASE II. Lucas Kischner, aged 74; nativity Germany; occupation vine-cultivator.

In autumn of 1871, Mr. K. noticed on the outer aspect of the middle of left leg a small swelling about an inch in diameter, superficial and of a dark color. Mr. K. insists that this swelling came of itself without known cause; only upon active exercise was pain to be felt in this swelling. It interfering thus with his labor, Mr. K. applied for advice to Doctor N., of C. in this State. According to the patient's statements, Doctor N. excised the tumor applying afterwards some kind of caustic to the wound, and this procedure was repeated at least thirty (?) times up to August 24th 1873; the growth re appearing after each operation and each time larger than before. After August 1873, the growth for the first time began to be persistently painful and to bleed spontaneously, the patient hitherto having been able to work as usual in his vineyard.

Sept. 24th, 1873.—Admitted to St. John's Hospital in the general surgical wards of the College. Patient's appearance very anæmic. The outer part of the middle third of left leg was occupied by a projecting growth of blackish color, and covered with ichorous discharge of very peculiar odor much like that proceeding from ulcerating cancer uteri. This growth was oval in outline, specially prominent at its middle portion, and overlapping slightly the bordering skin. It was firmly resistent on pressure. The parts in its immediate vicinity were involved, as they were discolored and firm on pressure. No glandular implication discoverable. Microscopic examination of a superficial slice showed presence of numerous spindle, or fusiform cells. Diagnosis, spindle-cell sarcoma.

Sept. 28th, 1873.—Prof. Lankford amputated through the condyles of the femur in the college amphitheater after same method as in Case I.

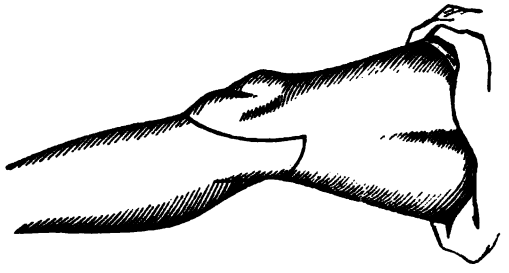
Microscopic examination of various portions of the growth confirmed the diagnosis. The spindle cells were arranged in bundles that interlaced each other in every direction, a layer of enlarged capillary blood vessels covered the surface of the growth from which blood seemed to have been abundantly effused into the surrounding tissues, part being there decom-

posed, besides what escaped in the hæmorrhages, thus giving rise to the black color above mentioned.

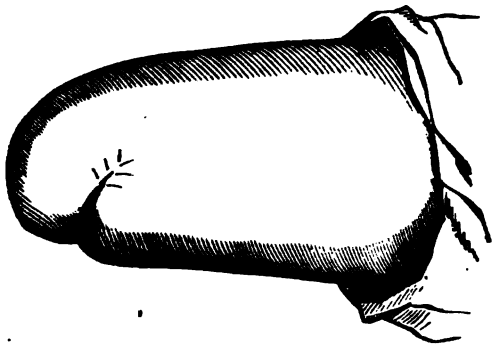
The after history of the case is as follows: The flaps united with reasonable rapidity except at the two angles and place of exit of the ligatures; at these points large granulations pale and flabby appeared, at one angle uniting to form a small flat fungoid mass. Patient said that the previous growth on leg commenced in this same form.

Free use of nitrate of silver combined with pressure gradually caused the disappearance of these suspicious masses. During the healing process patient's general health improved, the usual tonics being freely prescribed. He now, Dec. 18th, begins to move about on crutches. A small spot at the site of exit of the ligatures still remains uncicatrized it being difficult of direct manipulation, but this also will undoubtedly soon heal.

Regarding that class of tumors called sarcomata, it has been observed that they tend to re appear after operation in the cicatrix or its neighborhood, rather than to spring up continuously in the same spot as do cancers proper; also, they do not involve the lymphatic glands so certainly and promptly as cancers do. Spindle-cell sarcomata are found especially often in muscles, fasciæ, and cutis. They are locally very infectious. These various points are notably illustrated in this case.



Cut No. 1. represents the lines of incision adopted by Prof. Lankford in these two cases.



Cut No. 2. represents the present actual appearance of the stump of Case II. That of Case I is similar.

The full value of this particular method of amputation through the condyles not yet having been tested, and its apparent advantages warranting careful trial, induced Prof. Lankford to address his class upon the subject, in substance as follows:

"*Gentlemen*—Premising that since the use of anæsthetics in operative surgery, surgeons are deprived of all excuse for sacrificing anything either in plan or execution, to mere rapidity of performance, and may now give exclusive attention to the two great ultimate objects in an amputation, viz: safety to life, and usefulness of the stump; and ignoring all questions as to the propriety of amputations in certain classes of cases, I will confine my remarks this morning to the method which I adopt for this case, and which, by the way, I prefer in all amputations in this region. It is a slight modification of Mr. Carden's. Mr. Carden describes his amputation at this point as follows: 'The operator standing on the right side of the limb seizes it between the left forefinger and thumb at the spot selected for the base of the flap, and enters the point of the knife close to his finger, bringing it round through skin and fat *below* the patella to the spot pressed by the thumb, then turning the edge downwards at a right angle with the line of the limb, he passes it through to the spot where it first entered, cutting outwards through everything behind the bone; the muscles are then slightly cleared upwards and the saw is ap plied through the basis of the condyles; thus forming a flat-faced stump with a bonnet of integument to fall over it.'

"My procedure will differ only in this, that I shall not make the posterior cut at a right angle with the bone, but will incline the blade downwards so as to make it go through the integument about an inch and a half below the basis of the flaps, making a posterior concave flap of integument and muscle. My object in giving this direction to the posterior cut, is to leave enough integument and muscle to compensate for the contraction of the ham-string muscles. And you will see the propriety of this before we have united these flaps, for, by the time we are ready to stitch them together, the apex of this posterior flap will have contracted almost to the upper angles of incision. And this contraction, gentlemen, will continue until, when this cut shall have healed, the cicatrix will be upon the posterior aspect of the limb instead of in the centre of the stump, as we usually see it. It has only been since the substitution of this improved method of amputation that artificial limbs have been adapted for bearing any part of the weight of the body upon the stump. The cicatrix upon the end of the bone will not bear such pressure, but becomes painful, inflames and ulcerates. Such stumps must have artificial limbs so constructed as to pass upon the sides of the limb, and upon the next bony prominences above the stump. In this instance it would have to be the tuberosity of the ischium.

"But this stump will be entirely covered by integument and, under the influence of regulated pressure, will become thick brawny and hard, and in course of time will support the weight of the body without giving the patient uneasiness. I therefore teach you to-day that the method of amputation, by which a stump is left covered with integument with the cicatrix on the posterior aspect of the limb, is to be always prefered before either the old circular or flap methods, in civil practice. As just stated the operation I am about to perform is substantially that of Mr. Carden, of Worcester, England. To that gentleman, along with Mr. Teale and Mr. Lane, the profession are greatly indebted for such improved principles for amputations in the leg and thigh. And perhaps, gentlemen, I ought to say something to you this morning as to the comparative merits of the operation just described and the anterior rectangular flap method of Mr. Teale. If the test of usefulness in a stump be its length or the extent of its leverage and the character of

its covering, then we must decide against Mr. Teale's method. Take for example the part where this method has given best results. I mean the leg. In a leg of average size, if the bones be divided at Mr. Teale's 'seat of election,' that is just below the calf, it would require that the integument be sound to the the level of the tip of the internal malleolus. But, gentlemen, if three-quarters of an inch of integument be unsound at this point it would involve a loss of two more inches of bone, and this would in all probability make a stump with three inches less of lever power than by the method of Mr. Carden or any of its acceptable modifications. Here then we have a point of decided superiority, without discussing the relative merits of the coverings furnished by the respective operations."

Reviews and Bibliographical Notices.

A Treatise on Pneumatic Aspiration of Morbid Fluids—A Medico-Chirugical Method of Diagnosis and Treatment of Cysts and Abscesses of the Liver—Strangulated Hernia—Retention of Urine—Pericarditis—Pleurisy—Hydarthrosis, etc. By Georges Dieulafoy, Gold Medalist of the Hospitals of Paris. Philadelphia: J. B. Lippincott & Co., 1873. 12mo., pp. 394.

[For sale by Gray, Baker & Co.]

The unavoidable impression upon the perusal of this practical work is, that there has been "too much paint in the brush." The attempt is made to show that all the organs of the body not in motion, can be pierced by tubes large enough to evacuate fluids without any danger. When we remember what a minute mechanical injury is often the center of a diffuse and destructive inflammation, in systems predisposed to disease, we must hesitate before we admit that brain and peritoneum, can be pierced with absolute impunity.

A table is given of twenty cases of evacuation of the bladder by the aspirating needle, introduced ninety-seven times without

a single mishap attributable to the puncture. The needle was introduced above the pubes, and of course each insertion made two peritoneal punctures.

Of the 97 punctures, 23 were in one patient aged 72, with retention of urine in consequence of multiple stricture, all performed within a few days. It is said that in the cases in which death finally occurred, no marks of the punctures were found on the peritoneal surfaces.

Five cases are given of evacuation of the fluid of hydrocephalus by means of the aspirating needle and pump, but without final success. In spina bifida, however, the success was more encouraging. Two cases are given, and both recovered. In each of these two cases six evacuations were practiced at intervals.

Cysts and purulent collections of the liver have been treated with astonishing success. The reader is irresistibly led to believe that a great discovery has been made in diagnosis and treatment, but a practical reader would be better pleased to see a larger intermixture of cases which turned out less successfully.

It is not the purpose of this brief notice to do more than to afford an idea of the style and purport of the book. The style is that of an enthusiast, but the purport is a complete guide to the use of the instrument. For this purpose the pages are well sprinkled with cautions against the unskillful employment of the apparatus.

A caution of great importance is not to remove a very large amount of fluid at one time, but to give the surrounding solids time to accommodate themselves to their new relations before the further evacuation is permitted. This caution applies expressly to the brain, the chest and the abdomen.

Another caution is not to *malaxate* the parts; manipulation or kneading of parts around a cyst, in the liver or other easily ruptured tissues, may impair their integrity. For the same reason a patient should be required to remain in the most perfect quietude after the evacuation of any considerable amount of fluid.

Another caution is to be sure that the needle is pervious before it is introduced into the tissues.

The *previous* vacuum should be formed as soon as the orifice of the needle has gone below the surface. By *previous* vacuum,

Dieulafoy means the vacuum which is formed in the tube of the needle, by the action of the pump before the needle has penetrated to the seat of the fluid to be evacuated. The exploration is made with a needle which has a suction power in operation, so that as soon as the fluid is reached, its rise in the tube makes it known. In searching for small collections of fluid, it is obviously of great importance not to go through the collection without knowing it.

By *subsequent* vacuum, our author means the vacuum made by the working of the pump after the fluid has been reached.

In the exploration by a detached trocar, and the subsequent employment of suction or aspiration, the *subsequent* vacuum is produced. The quality of the previous vacuum is dwelt upon as that which characterizes the apparatus as an *invention* dating November 2nd, 1869.

Let the author describe the employment of the needle:

"Let us imagine a cyst deeply seated in the liver, and let us proceed to search for the fluid by means of the previous vacuum. The aspiration prepared, or in other words, the vacuum is made as a preliminary, and the needle is put in communication with the pump, the stop cocks remaining closed. This hollow needle is then introduced into the region to be explored; and when it has passed the distance of a centimeter ($\frac{1}{3}$ of an inch), the corresponding stop cock is opened. What occurs? The air contained in the needle is at this point rarified by the *previous* vacuum in the body of the pump, and the needle, possesses in its turn aspiratory power; it becomes an aspiratory needle and carries the vacuum with it. Then, if pushed through the tissues, it is with the vacuum in our hands that we proceed to the discovery of the effusion. At the moment that the aspiratory needle enters the fluid, the latter rapidly traverses the glass index, gets into the aspirator and the diagnosis is inscribed in the apparatus without the interference of the operator."

An essential requisite to the safe puncture of the peritoneum the pleura, the pia mater, and other delicate surfaces, is that the needle be sufficiently small. These are the sizes given by Dieulafoy:

No. 1, half a millimetre (.039 inch).
No. 2, one millimetre (.078 inch).

No. 3, one millimetre and a half (.117 inch).
No. 4, two millimetres (.156 inch).

The needle ordinarily employed is No. 2. The most delicate explorations are made with No. 1, while No. 3 is only employed when the fluid is of considerable thickness.

The style of the book has sufficient exaggeration to make it interesting reading.

It may be disappointing to have a discovery of a principle or an appliance over-estimated, but it is a sure way to call attention to it. With this caution in the mind of the reader, the book is very instructive as well as interesting. P.

A MANUAL OF MEDICAL JURISPRUDENCE. By Alfred Swaine Taylor, M. D., F. R. S., Fellow of the Royal College of Physicians, and Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. *Seventh American* edition, revised from the author's latest notes, and edited with additional notes and references, by John J. Reese, M. D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, etc., etc. With illustrations on wood. Philadelphia: Henry C. Lea. 1873. pp. 879, 8vo.

The subjects brought before the courts, in which medical men are called upon to give testimony, are not only of much importance in many cases, but are of so great a variety, and require so much knowledge, special as well as general, that experts are very frequently called to give testimony. And while the details may include almost every branch of medical science, more than any one may be able to possess, yet such a general knowledge of the various subjects, in many cases even the details, is indispensable to the practitioner of medicine and surgery. This manual proposed to furnish the essentials of the subject without giving the details of cases which are to be found in the new edition of the author's work, "The Principles and Practice of Medical Jurisprudence," though the American editor has had, by the courtesy of the author, the advantage of consulting the sheets of the new edition of the large work, and has thus been enabled to bring the present volume up to the latest dates.

The work is not so diffuse as to obscure the important matters by unimportant details; but it contains the essentials of "State Medicine."

We must call attention to one item respecting the *dose* of opium: "The medicinal *dose* of opium in *extract* or *powder*, for a healthy adult, varies from half a grain to two grains. Five grains would be a very full dose. The medicinal dose of the *tincture* (laudanum) is from ten minims to one drachm—as an average from thirty to forty minims. The *smallest* dose of *solid opium* which has been known to prove fatal to an adult, was in a case reported by Dr. Sharkey, of Jersey. A man aged 32 years, died very suddenly in a convulsive fit, after having taken two pills, each containing about one grain and a quarter of extract of opium This quantity is equivalent to four grains of crude opium. The *smallest fatal dose* of the *tincture* in an adult, which I have found recorded, is *two drachms.*"

In the above, we find that, "five grains would be a very full dose." And in the same paragraph a case of fatal poisoning from *about* two grains and a half, is cited—a less dose. We have taken the trouble to look over several posological tables, and in the majority the dose is from 5 to 40 minims; 13 minims, or 25 drops being regarded as equivalent to one grain of opium, we see no justification in admitting a dose of "five grains of *extract* or powder," or "a drachm of tincture" as a medicinal dose, for a "healthy adult;" for as in the above case, it may prove fatal. We have seen more than one fatal adult case from prescribed opiates. Cases do occur, as every practitioner knows, in which large doses, even larger than those spoken of, may be required, but such large amounts should be gradually reached.

While we do not expect the student to learn materia medica from a work on medical jurisprudence, yet we cannot omit to notice what seems to be a reckless statement in a work so popular, and of such deserved reputation. The number of editions—seven,—speaks in highest terms of its popularity.

The work of the publisher is almost faultless, and reflects the highest credit on the house of Henry C. Lea. G.

"On the Mechanical Treatment of Disease of the Hip Joint." By Charles Fayette Taylor, M. D. New York: Wm. Wood & Co.

This is an essay of 62 pages, with 14 well executed wood cuts, 13 of which are illustrative of apparatus for treatment, and one of deformity resulting from neglected disease.

One of the good points of the essay is that there is no encouragement afforded for a speedy cure. One of the greatest difficulties of treatment consists in holding the patient from being taken to some pretender who has a speedy cure. This is the sober way in which Dr. Taylor talks (p. 52):

"The length of time necessary for the radical cure of a case is from six or eight months in mild cases, to several years in the more severe ones. I have had a case of perfect restoration of a joint without the least lameness or restriction of motion after four years of continuous treatment, during the whole of which time the muscles were kept relaxed and the patient never once bore her weight upon the affected joint. During the last six months it seemed evident that all diseased action had passed away, but moderate extension was kept up for the purpose of giving the patient the benefit of doubt. She walked away after removing the splint with perfect motion and muscular action, and has continued a year as well as any one. This was a young lady of 20 years of age." * * * * * * *

"In such cases as have already passed beyond the first or curable stages, the best attainable result is still to be striven for, and the treatment here advocated is the best means to secure it. But it may require years in such cases to accomplish all attainable good. Even in cases in which ankylosis of the hip joint is inevitable, the limb can be kept in the most favorable position for future usefulness."

The apparatus now employed by Dr. Taylor, and figured in this book, extends below the foot, so that in walking, no weight shall come upon the foot or upon any part of the limb. The whole of the weight of the body comes upon the groin, or upon both groins. A pelvic metallic band admits of the application of a perineal band under both groins.

It is always gratifying to see in the beginning of an essay upon any subject, a regard paid to the motto, "Honor to whom honor is due" (p. 16). "To Dr. Henry G. Davis we must ascribe the honor of making the first practical application of the idea of extension *with locomotion*. In the year 1855 he began the use of his splint for this purpose." * * * * "He was the first to point out as an always present factor in the joint destruction, the existence of unremitting pressure as effected by the con-

traction of the muscles passing over the affected joints causing constant forcible opposition of the surfaces within the joint."

Dr. Taylor speaks disparagingly of the employment of the weight and pulley, and states that much of the benefit is attributable to the quietude enforced by this method of treatment.

This, instead of being a criticism, should be set down in commendation of the plan during the period in which quietude may be beneficial. It should be borne in mind that hip disease, during the early part of its course, does not differ, in its indications for treatment, from other forms or sects of inflammation. Besides, the confinement to bed is often a good initiative to the subsequent treatment by a portable extending splint. The inducement to get out is a compensation to the patient for the discomfort of the splint which is felt as an annoyance. It is more readily submitted to than if applied in the first instance. There is, however, very little to criticise in the book. Its extensive perusal by the profession will produce a familiarity with the mechanical appliances for treatment, and save many a patient from permanent deformity and lameness through the arrest of the disease before its destructive stage has been reached. P.

BOOKS AND PAMPHLETS RECEIVED.

SEX IN EDUCATION; or a Fair Chance for the Girls. By Edward H. Clark, M. D., etc. Boston: James R. Osgood & Co. 1873.

[For Sale by Gray, Baker & Co.]

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Philadelphia: Collins, Printer, 705 Jayne Street. 1873.

DESCRIPTION OF NEW INSTRUMENTS FOR MAKING EXAMINATIONS AND APPLICATIONS TO THE CAVITIES OF THE NOSE, THROAT AND EAR. Illustrated. By T. F. Rumbold, M. D. St. Louis: Southwestern Book & Publishing Co., No. 510 Washington Avenue. Reprint from this JOURNAL. 1873.

INFANT DIET. A Paper read before the Public Health Associa-

tion of New York. By A. Jacoby, M. D. New York: G. P. Putnam's Sons, 4th Avenue and Twenty-third Street.

DISEASES OF THE EYE. Including the Anatomy of the Organ. By Dr. Carl Stellwag (von Carion), Prof. of Ophthalmology in the Royal University of Vienna. Translated from the fourth German edition, and edited by D. B. St. John Roosa, M. D., Charles S. Bull, M. D., and Charles E. Hackley, M. D. Fourth revised and enlarged edition. Illustrated by wood engravings and chromo-lithographs. 8vo., 915 pp. New York: Wm. Wood & Co., 27 Great Jones St. 1873.

[For sale by Gray, Baker & Co.]

REPORT OF THE SUPERINTENDENT OF THE INSANE ASYLUM OF NORTH CAROLINA. 1872. Raleigh: Edwards & Broughton, Printers.

ON THE GRANULAR CELL FOUND IN OVARIAN FLUID. By Thomas M. Drysdall, M. D., of Philadelphia. From the transactions of the American Medical Association. 1873. Philadelphia: Collins, Printer, 705 Jayne Street.

EVIDENCES OF LIFE IN THE NEWLY-DELIVERED CHILD. By Wm. B. Atkinson, M. D., Philadelphia, Pa.

VARICOCELE, AND ITS RADICAL CURE. By Octavius A. White, A. M., M. D. New York: D. Appleton & Co.

VICK'S FLORAL GUIDE. January number, for 1874. Published quarterly, by James Vick, Rochester, N. Y., *at 25 cents a year.* The best and cheapest Floral Guide in the World.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY.—Sixth Annual Meeting, Newport, Rhode Island, July, 1873. Boston: A. Mudge & Son.

THE PHYSICIAN'S HAND-BOOK, or Visiting List for 1874. *Record of Practice* for seventy patients a week, with Classification of Diseases, List of Incompatibles, Materia Medica, Art of Writing Prescriptions, Diagnostic Record, New Remedies, etc. By Wm. A. D. Elmer, M. D. New York: W. A. Townsend, Publisher, No. 177 Broadway.

[For Sale at all Book Stores.]

PROCEEDINGS OF THE MEDICAL ASSOCIATION OF ARKANSAS. Fourth Annual Session, held at Little Rock, October 9th, 10th and 11th, 1873.

ANNUAL REPORT of the Surgeon General, U. S. Army, 1873.

CHANGES OF TEMPERATURE AND PULSE IN YELLOW FEVER. By Joseph Jones, M. D., New Orleans. Reprint from *The American Practitioner*, September, 1873.

A MEMORIAL OF THE AMERICAN MEDICAL ASSOCIATION with regard to the Rank of the Medical Corps of the U. S A. Also advanced sheets of a Dictionary of Elevation of the cities of the United States above 5,000 population. By J. M. Tonor, M. D., Washington, D. C.

ON THE QUESTION OF THE TRANSMISSION OF SYPHILITIC CONTAGION IN THE RITE OF CIRCUMCISION. By R. W. Taylor, M. D. Reprint from the New York *Medical Journal*. D. Appleton & Co.

THE FIRST OF THE TONOR LECTURES, on the Structure of Cancerous Tumors, and the way in which adjacent structures are invaded. By J. J. Woodward, Assistant Surgeon U. S. A., 1873.

FETAL PHYSICAL DIAGNOSIS, with an Analysis of the physical examination of 126 cases. By Frank C. Wilson, M. D. Reprinted from *The American Practitioner* for December, 1873. Louisville: John P. Morton & Co.

A HAND-BOOK ON THE THEORY AND PRACTICE OF MEDICINE. By Frederick T. Roberts, M. D., B. Sc., M. R. C. P., etc. Philadelphia: Lindsay & Blakiston, 1873. 8vo. pp. 1052.
[For Sale by the St. Louis Book & News Co.]

DISEASES OF THE EAR. Including the necessary Anatomy of the organ. By A. D. Williams, M. D., St. Louis, Missouri. Formerly Lecturer on Otology in the Miami Medical College. Cincinnati: Robert Clark & Co. 8vo. pp. 290.
[For Sale by the St. Louis Book & News Co.]

Extracts from Current Medical Literature.

Post-mortem effects of the Aspirator upon the Bladder.

Dr. Loomis exhibited to the Pathological Society of New York, May 28, the genito-urinary apparatus of a patient dead of pneumonia, in which the aspirator had been used several times on account of retention of urine from enlarged prostate gland. "On laying it (the bladder) open opposite a spot of extravasation that was noticed upon the surface of the bladder—partly above and partly below the peritoneal attachment—could be seen points where the needle entered the bladder. These were mere red dots, further than which there was no disturbance of the mucous membrane. The points on the surface of the bladder and peritonæum corresponded to the punctures upon the abdominal walls, and there was a slight sub-peritoneal extravasation, but there were no evidences of peritoneal inflammation. Some of the punctures were made above and some below the peritoneal attachment. The middle lobe and left lobes of the prostate were very much enlarged. Just at the junction of the membranous and spongy portions of the urethra were two false passages. Dr. Gouly said this was the first case of the use of this instrument for enlarged prostate."—*Medical Record.*

Lithium Salts in the Treatment of Calculus, Gravel and Gouty Deposits.

Ranking's observations, July, in an article on this subject, concludes as follows:

"To sum up, we may remark that lithium salts, as simply antacid remedies, offer no special advantages; that as diuretics they may, in cases in which saline diuretics are indicated, prove of much service; but as agents to prevent the deposition of uric acid or its salts in the cavities or tissues of the body, they possess properties which may render them important medicinal agents."

He claims to have introduced these salts to the notice of the profession thirteen years ago; and that they have been officinally in the British Pharmacopœia for nine years. He has

had considerable experience of their action, and gives the above as his observation.—*Dr. A. B. Garrod, Med. Times and Gazette.*

Phytolacca Decandria in the Treatment of Inflammation of the Mammary Glands. By G. W. Biggers, M. D., of La Grande, Oregon.

The author details three cases, in one of which "there could be no mistake about the commencement of an abscess." He has used this remedy in many other cases and *it has never yet failed in a single case.* The preparation used was the fluid extract (Thayer's) in from xv to xx drop doses every three hours in water.—*Amer. Jour. Med. Sciences*, Jan., *Rank. Abst.*, July, and many other Journals.

Removal of Plaster of Paris Bandages.

A strong solution of common salt causes the plaster to crumble, so that the bandage can easily be cut. It also quickly cleanses the hands of the operator from the gritty article used for securing immobility.—*Atlanta Med. and Surg. Journal.*

On the Curative Action of Ipecacuanha in Diarrhœa. By John C. Thorowgood, M. D.

The author reports two severe cases of obstinate *diarrhœa*, having from 6 to 12 liquid motions daily mixed with blood. Rest in bed, with milk diet and chalk mixed with bismuth, was first tried; "then iodide of potass. with Fowler's solution; then solid meat, nitrate of silver with opium, decoction of logwood, injections of starch with tinct. of opium, and powders of mercury with chalk, and Dover's powder."

The cases were then treated with two grain doses of ipecac, combined with five grains of compound powder of tragacanth in water, three times a day. They began to improve in a day or two. In one case, a bad one, the dose was gradually raised to five grains of the ipecac.—*London Lancet*, May 24, *Rank. Abs.*

Preservation of Organic Substances by means of Fuchsine. Lanjerois, in *Rev. de Therap.*

Gelatine putrefies with the greatest facility at a temperature of 25° C., 48 hours only being required for it to become covered with mould, to liquify, and undergo complete decomposition. If to a solution of gelatine is added a fifth part of *fuchsine*,

it can be preserved in open air during an indefinite period. A piece of beef, weighing fifty *grammes* (more than an ounce and a half), has been enveloped in blotting paper moistened with a solution of a hundredth part of fuchsine. This piece of meat has been exposed to the air for several months, and has as yet undergone no alteration. Urine, to which one-forty-thousandth part of analine violet had been added, was placed in a test-tube in contact with the air, and at the end of six months had undergone no putrefaction.—*Med. Record.*

Tape Worm.

Reading Dr. Slaughter's case of *Tape Worm*, in the July number, 1872, of the JOURNAL, reminds me that I, too, have a "worm story."

Having a case of tape-worm to treat, I prescribed a decoction of the bark of the root of the pomgranate (*Punica Granatum*). "*Two ounces of the bark to a pint and a half of water*—stand over night, then by gentle boiling reduce to a pint, strain and express the liquor; administer it warm in three doses, at intervals of an hour, before the patient breaks his fast." In one hour and a half from the time the patient swallowed the first dose, he voided, intact, a living tape-worm thirty-eight feet and three inches in length, and declined the third dose, insisting that "that was enough tape worm before breakfast." EVANS.

Acknowledgment.

As we pass the closing hours of the old year to enter upon the new, we are reminded to make grateful acknowledgment of the hearty coöperation and *substantial aid*, so generously extended to the JOURNAL the passed year.

THE SAINT LOUIS

Medical and Surgical Journal.

FEBRUARY, 1874.

Original Communications.

A CASE OF OVARIAN TUMOR IN A GIRL OF ELEVEN YEARS.

By the late AD. BERCHELMANN, M. D., of Belleville, Illinois, with Remarks by DR. GEO. J. ENGELMANN.

L. T., aged eleven years, born of healthy parents, no trace of any carcinomatous affection in either branch of the family, her mother's parents both died of phthisis pulmonalis, has three brothers living, one older and two younger than herself.

I first saw patient at my office on the 10th of December, 1870: her color was healthy, her figure slender, her abdomen very much enlarged; altogether, she presented the appearance of a woman approaching full term, and through her clothing I felt a tumor resembling the pregnant uterus. Upon careful examination, a few days later, I found a hard, round tumor extending from the arch of the pubis, half-way between the umbilicus and the ensiform cartilage, in form resembling the pregnant uterus in the seventh month, with the fundus distinctly marked. The surface of the tumor was un-

even, with several protuberances not unlike the head and breech of the fœtus.

There was an empty space between the umbilicus and mons veneris, but upon hard pressure the resisting tumor could be detected there also. The external genital organs were well developed, the pudenda covered with a growth of hair, uncommon in a girl of her age. The pulse was small, rather hard and rapid, over 100, appetite failing, pains in the right inguinal region, the whole body emaciated, all symptoms indicating overtaxation of the vital powers, either by a deep-seated constitutional derangement, or by pregnancy at too early an age.

December 15th, I saw the girl in consultation with Dr. Meyer, when the following history was obtained:

In February, 1869, she had a discharge from the vagina resembling pus, lasting several days, and followed by a bloody flow from the same source which was taken to be the first appearance of menstruation. Before that time the child had enjoyed good health, with the exception of a few attacks of fever, and was tall and fleshy. The so-called menses returned three or four times at irregular periods during the year, and in several instances were very profuse, of dark brownish color, nearly black, staining the linen worse than a healthy discharge of blood usually does. Nine months hence she met with an accident, falling heavily on face and abdomen on the steps of the school-house. For several days she complained of pain in her right side, and limped somewhat; all this, however, soon disappeared. Last fall the parents detected a tumor in the girl's right side, taking it for an "ague cake," as the popular expression is, they paid no further attention to it, yet noticed that the girl was losing flesh. The abdominal tumor rapidly

increasing and emaciation progressing, medical aid was sought.

The mammary glands were found moderately enlarged, nipples protruding and surrounded by a halo. In examining the external genital organs we could detect no hymen, and found the vaginal canal wide enough to admit the finger readily. The portio vaginalis was about three-fourths of an inch long, the os a transverse opening with the lips turgescent and distinct to be felt, not as in a virgin, or even a primipara. We succeeded in introducing a uterine probe one and one-half inches into the cavity of the uterus, but there it remained immovable, confirming the idea that the uterus contained some solid substance. Summing up the results of our examination, we came to the conclusion that we had before us either a case of pregnancy in so young a person as to exhaust the constitution, or a uterus enlarged and distended by a morbid growth completely simulating pregnancy. Diagnosis still obscure. Prognosis pessima. Medication expectant and palliative.

From the 15th of December, 1870, up to the fatal termination of the case on the 14th of February, 1871, the symptoms were, in short, as follows: For three or four weeks no alteration, pulse over 100, emaciation continues, size of abdomen gradually increasing, most excruciating pains in the right groin, appetite failing; at this time another sanguinolent brownish discharge from the vagina, not blood, but a morbid secretion which lasted about three days, not very profuse. Soon after this I detected a small tumor growing from the mucous membrane near the meatus urinarius, it increased rapidly, and seemed to be of carcinomatous structure; when it reached the size of a hickory-nut it was ligated,

even, with several protuberances not unlike the head and breech of the fœtus.

There was an empty space between the umbilicus and mons veneris, but upon hard pressure the resisting tumor could be detected there also. The external genital organs were well developed, the pudenda covered with a growth of hair, uncommon in a girl of her age. The pulse was small, rather hard and rapid, over 100, appetite failing, pains in the right inguinal region, the whole body emaciated, all symptoms indicating overtaxation of the vital powers, either by a deep-seated constitutional derangement, or by pregnancy at too early an age.

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increasing and emaciation progressing, medical aid was sought.

The mammary glands were found moderately enlarged, nipples protruding and surrounded by a halo. In examining the external genital organs we could detect no hymen, and found the vaginal canal wide enough to admit the finger readily. The portio vaginalis was about three-fourths of an inch long, the os a transverse opening with the lips turgescent and distinct to be felt, not as in a virgin, or even a primipara. We succeeded in introducing a uterine probe one and one-half inches into the cavity of the uterus, but there it remained immovable, confirming the idea that the uterus contained some solid substance. Summing up the results of our examination, we came to the conclusion that we had before us either a case of pregnancy in so young a person as to exhaust the constitution, or a uterus enlarged and distended by a morbid growth completely simulating pregnancy. Diagnosis still obscure. Prognosis pessima. Medication expectant and palliative.

From the 15th of December, 1870, up to the fatal termination of the case on the 14th of February, 1871, the symptoms were, in short, as follows: For three or four weeks no alteration, pulse over 100, emaciation continues, size of abdomen gradually increasing, most excruciating pains in the right groin, appetite failing; at this time another sanguinolent brownish discharge from the vagina, not blood, but a morbid secretion which lasted about three days, not very profuse. Soon after this I detected a small tumor growing from the mucous membrane near the meatus urinarius, it increased rapidly, and seemed to be of carcinomatous structure; when it reached the size of a hickory-nut it was ligated,

and soon fell off. This small tumor served to confirm the idea of a carcinomatous growth in the uterus. In a second examination, I found the portia vaginalis shorter than at first, the os in the same condition, except that the anterior lip was softer and more yielding, just as in progressing pregnancy. At the end of the fifth week, symptoms of ascites began to show themselves, patient's appetite became ravenous; her stomach could bear anything and everything; bowels, constipated before, now acted regularly; at the same time emaciation progressed, and her pulse was never under 110, often 120 and over. The pain in the groin had totally disappeared. One week before death œdema of the hands and feet began, a troublesome cough with profuse blood-tinged expectoration set in, and on the 14th of February 1871, she died.

Autopsy seven and a half hours after death. Rigor mortis moderate, as I had ordered the corpse to be kept in a warm room to facilitate examination. Emaciation complete, a mere skeleton, had the appearance of a phthisical female of thirty or forty years. The circumference of the body one-half inch above the umbilicus was two feet eleven and a half inches. In puncturing the right side with a trocar I removed about one gallon of fluid of cadaverous odor, and dirty brownish color, similar to the former discharge from the vagina. After removing the integuments we found a large, hard, knotty tumor, which proved to be the right ovary and not the uterus, the pedicle was formed by the right Fallopian tube being twisted around its axis from right to left. The pancreas had the appearance of fungus hæmatodes. Omentum, pancreas, colon transversum and part of ileum were adhesive to the tumor, and

strewn with tubercles. After detaching the adhesions with the hand, I removed the tumor which weighed nine pounds, nine ounces. The uterus was found very nearly in its normal virgin state, the left ovary atrophied, the bladder very much compressed. The tumor is of uneven globular form, in structure carcinomatous; anteriorly are several cysts containing the same sanguinolent brownish fluid that was found in the abdominal cavity, and at former periods discharged through the vagina. This accounts for the repeated discharges which were considered menstrual.

After the post-mortem examination we came to the following conclusions: The so-called menstruation was a sanguinolent discharge from the tumor through the Fallopian tube into the uterus and vagina. The tumor, which, according to the statement of the parents, first appeared in the right side, by increased weight and size inclined to the center and left, thereby twisted the Fallopian tube around its axis from right to left and assumed a central position filling the whole abdominal cavity and pressing the intestines backward. The pain in the right groin was produced by the turning and stretching of the Fallopian tube, and ceased when the tumor by its extension was supported on all sides. Ascites, œdema, and pulmonary affections with continuous hectic fever, were natural consequences of the disease and symptoms of dissolution. The destruction of the hymen and widening of the vagina must have been produced, we think, by masturbation, as the child, feeling distress, and irritation in the parts, tried to relieve herself. On her death-bed she positively denied ever having had any connection with the male sex.

When first called upon to attend the patient, the

disease was so far advanced, and the system already sinking under its influence, that operation or curative medication was out of question, and we could but endeavor to relieve the sufferings of our unfortunate little patient, whose end we saw so steadily approaching.

The above case is a most rare and interesting one, and we are greatly indebted to the family of the late Dr. Berchelmann, one of the oldest and most esteemed physicians of St. Clair Co., for having kindly placed the paper at our disposal. No change has been made in the manuscript beyond the omission of some details of more local and personal interest, and it must be understood that the views expressed are those of the author.

So few cases of ovarian disease in children are recorded that we should carefully study those which may come under observation, and I deem it a pleasant duty to add a few words in explanation of the one before us, as my attention had already been called to this point some years ago by a similar case.

With regard to the clinical history I would say that the idea of a traumatic origin which is hinted at, the fall with injury to the abdomen, cannot be entertained, as the disease had manifested itself at a much earlier date by the sanguinolent discharge from the vagina, which was quite naturally taken by the family as the first appearance of menstruation; it was however a discharge from an irritated uterus, and has been observed in similar cases. I must disagree with Dr. Berchelmann, in his supposition that this discharge came from the tumor, and passed through the Fallopian tube into uterus and vagina.

The Fallopian tubes, unless themselves in cystic

degeneration, are never sufficiently permeable to permit the passage of such quantities of fluid; this is a fact which I can positively assert, it is the result of my own observations, made upon an extensive series of *post-mortems* of women with healthy and diseased uteri, also during, and immediately after gestation, when we should expect the tubes to be most enlarged. The question then before me was with regard to the possibility of passing the uterine sound through the Fallopian tube while making an examination of the womb; but in no condition of uterus or ovary, whether physiological or pathological, was the tube found passable for any but the very finest probes, if it could be entered at all,—so that I must unhesitatingly dismiss Dr. Berchelmann's mode of explanation. For over a year the disease remained comparatively latent, when the tumor rapidly increased in size, emaciation set in, and the disease rapidly ran its fatal course.

The history of the few similar cases I can at the moment recall, is very much the same. In one cited by Spencer Wells, a soft cancer involving both ovaries of a child thirteen years old, the catamenia showed themselves as the first sign of disease, later a tumor appeared which increased slowly for a time, then at once grew very rapidly until death relieved the little sufferer. In another, observed in the Vienna General Hospital, in 1871, a carcinoma ovarii in a girl of thirteen grew to more than twice the size of a man's head in the short space of three or four weeks.

The difficulty of a differential diagnosis between a morbid growth and pregnancy in the case before us seems to me to be a little exaggerated; the diagnosis with regard to the nature of the tumor, however, was certainly not an easy one.

The *post-mortem* record shows that we are dealing with an immense *cysto-carcinoma medullare ovarii dextri*, with effusions in the abdominal cavity, adhesions, and metastatic tumors in the peritoneum and some of the abdominal organs. The affection was evidently a primary one, as the uterus, where the carcinoma often takes its origin, spreading from there to the ovary, was normal, and the left ovary atrophied. Of all the morbid growths of the ovary, the cancer is second alone in frequency to the cyst, and to the best of my knowledge, the ovarian tumors found in very young girls are in most instances medullary cancers of rapid growth; such the case before us seems to have been; such was the case of Spencer Wells, in which a microscopic examination was made by Wilson Fox, who reports the general structure of the tumor, and metastatic nodules to have been that of cells and nuclei imbedded in a stroma of fibres with large nuclei and capillary vessels.

Of the case I mentioned as having been observed in the Vienna General Hospital, I was fortunate enough to be enabled to make a careful *post-mortem* examination, and specimens are still in my possession.

In some of its parts this tumor shows a sarcomatous structure, with enlarged capillaries, but the great mass consists of moderate sized cells imbedded in the meshes formed by a stroma of connective tissue finer in some places, coarser in others; in short this is also the medullary cancer, the pathological condition which we always find in these very rare, rapidly developing cases of ovarian tumor in the child.

3003 Locust Street.

NOTES ON THE USE OF THE CAUSTICS, NITRATE OF SILVER AND CHROMIC ACID, IN THE CAVITIES OF THE MOUTH AND EAR.

By CHARLES A. TODD, M. D., Adj. Prof. Surgery; Lecturer on Otology and Laryngoscopy, Missouri Medical College.

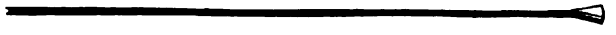
In lack of other authority having been compelled to solve for myself certain important points involving the use of the caustics, nitrate of silver and chromic acid, and being satisfied that my conclusions have been of practical use, I feel warranted in presenting the same for the consideration of the profession at large. Familiar in hospital and clinical practice with the *immediate* efficiency of Arg. Nit. in many cases of ulcerations, abrasions, superficial suppurations, and the like, I have come to hold this salt in high esteem in the treatment of surgical affections of that nature. In these cases, apart from the mere destruction of tissue, the beneficial effects of the silver I think to be mainly mechanical in character. Coming in contact with the exposed surfaces it combines with some of the animal matter and forms the well known whitish pellicle. This pellicle acts as a substitute for the natural epithelium in so far as it *protects* the subjacent parts from contact with the air or secretions, thus removing at once this source of local irritation. The irritation excited by the silver soon subsides and the part is left in a condition favorable for repair, just as the film of epithelium appearing on a granulating surface is an essential step towards its cicatrization, or better, the instance of healing under a scab. This premised we can readily understand the ac-

knowledged efficiency of the nitrate in chronic suppuration of the ear. Here we have a surface denuded of epithelium, its exposed sub-epithelial tissues covered with granulations and giving rise to a persistent discharge, and as from the nature of the region we can not apply the solid nitrate, strong solutions may be dropped into the ear to be followed with a solution of common salt to neutralize the excess. In cases of obstinate otorrhea with perforation of the membrana tympani one such instillation followed with a course of cup. sulph., will often effect wonders.

Ulcerative stomatitis in children is a most troublesome disease, not only on account of the great suffering caused the little patient, but also through its tendency to persist and extend its ravages. There came recently to my office a boy of about nine years, suffering from ulcerative stomatitis, otherwise he was apparently in good health. His right cheek was much swollen and, on examining the mouth, I found the external margins of the gums of both jaws from the last molars on the right side round to the left bicuspids, extensively ulcerated. The opposing surface of the cheek exhibited also ulcerations, some quite large. I applied with a brush a solution of nitrate of silver, one and a half drachms to the ounce, thoroughly along the gums of the incisors to check, if possible, the advance of the ulcerative process, and directed the mouth to be well washed out several times daily with a solution of alum one and a half drachms to eight ounces of water. Next day the patient's condition seemed somewhat bettered, there being also no further advance of the disease. The brush and silver were re-applied liberally all along the ulcerated gums, of course neutralizing the excess

with common salt, while in addition I cauterized the ulcers on the cheek with the solid stick. The pain thus caused seemed to last but for a moment. This treatment caused a rapid improvement, two days later, the ulcerations being much reduced in extent. I then touched the edges of the gums as well as the ulcers of the cheek with the stick, keeping up the alum wash. Two days later still, the ulcerations had so nearly disappeared that the wash only was continued to guard against recurrence. In case of moderate follicular ulcerations of the mouth, the solid stick thrust into each ulcer will at once put an end to those annoying lesions.

Chromic acid is a powerful caustic rapidly destroying the tissues. Nitrate of silver does not penetrate deeply, hence, where much tissue is to be removed by caustic, the nitrate is not so efficient by far, as chromic acid. But the acid has the inconvenient property of rapid deliquescence, consequently its action must be guarded, lest the cauterization be too extensive. Now in operation for polypi of the aural cavities with snare or forceps, the base of the polypi, to a greater or less extent, remains still attached; this remnant must also be removed, that all the diseased tissue be extirpated. In such a case chromic acid is a valuable agent, but of course requires great caution in its application. I have overcome the objection to the use of the acid, its excessive deliquescence, by means of the instrument here represented. It consists of a cup of platinum just



large enough to contain a single crystal of the acid, and

which is soldered to a silver wire that can be bent at any angle; the whole being six inches in length. To use this caustic carrier, put a few crystals of chromic acid in a watch glass, and press firmly down upon them the mouth of the platinum cup, thus crowding in a sufficient quantity of the acid. Then, illuminating well the meatus, pass in the instrument which should be so bent as to cause the mouth of the cup to strike squarely the spot to be cauterized. When properly placed, press the instrument steadily against the morbid growth so that the edges of the cup will prevent any flowing of the liquified acid, which is thus confined absolutely to the one small spot that alone is to be subjected to its action. When the charge of acid is exhausted the cup can be instantly re-filled and re-applied if necessary.

CHRONIC HYDROCEPHALUS (CONGENITAL).

Report of a Remarkable Case, Read by DR. CLAYTON KEITH, at the St. Louis Medical Society.

Previous History: James R. Smith, aged 26 months, born in Stoddard county, Mo. His birth was natural. No forceps were used in his delivery. Vertex presentation. No accident, such as a fall upon the head, happened to him at birth, or immediately afterward. His head was about twice the size of a fœtal head at birth.

Head was greatly *elongated*, the father thinks it was twice as long as it should have been. He was born at full term—*i. e.*, at the end of nine months' utero-gestation—*not longer*. His mother and an aunt "had scrofula" in childhood. They suffered from enlarged glands about the throat. His mother was married at sixteen years of age. Her first child was still-born at the end of seven months' gestation. Patient is the second child. At the end of fifteen months after his birth, his mother gave birth to a third child, which is still living, (eleven months old), in good health, and presents no indications whatever of any head trouble. His mother died five weeks after the birth of her third child. Cause of her death, acute phthisis with puerperal fever, complicating. The child's maternal grandfather died of phthisis. His paternal grandfather died of pneumonia, preceded by a troublesome cough for several months, probably phthisis also. Two paternal uncles died of phthisis. His father has had a severe cough for several years. Was in poor health at the time of his marriage. Has never had syphilis. Has always been a temperate man. Patient has never suffered from any severe or acute disease. Has never had scarlatina, measles, whooping-cough or any of that class of diseases incident to childhood. Has never had convulsions. Is not now, nor has he ever been paralyzed in any of his limbs. Has never appeared dull or stupid, on the contrary, has ever been bright and lively. Has at no period of his life been emaciated,—on the contrary, his arms, legs and body, have been plump and well nourished. His general health has been uniformly good. Has not suffered much from dentition, although he has cut all but two molar teeth. He has

never attempted to speak. His father states that his head has been constantly and uniformly increasing in size ever since his birth. He can observe an increase *each week.* The father thinks his child has never suffered any severe pain in his head, although he occasionally puts his hands on his head, just above his eyes, in a manner that would indicate a slight pain in the frontal region. He has received no medical or surgical treatment.

Present Condition:—General health good. Appetite excellent. Bowels regular. Urine passed in good quantity. He often smiles, but rarely cries. Body and limbs are plump. Head is uniformly enlarged. Both sides are symmetrically developed. Head is flattened from before backward. Circumference of head,—44 inches, or twice that of an adult. His head is said to weigh twenty pounds. Head is entirely too heavy for his body to support. He has to be kept in a supine position in his cradle. His forehead instead of receding juts out and overhangs the brow almost two inches farther than normal. His eyes are generally closed, from an intolerance of light. Almost all of the iris is hid beneath the lower lid. On opening the lids the upper half of the sclerotic is first presented to view. There is an occasional but not constant convergent strabismus observed. The edges of his eyelids are red. The pupils are dilated. His eyesight is apparently good. The sense of hearing seems unimpaired. The sense of taste likewise. The features of his face are well-proportioned. His cheeks have a good color. Both the anterior and posterior fontanelles are greatly enlarged. The former is four by nine inches; the latter six by ten inches. Fluctuation is distinct over both

fontanelles—the skin is tense. The veins of the scalp are well-marked and turgid.

The bones of the cranium are excessively large; the parietal bones being each as large as an adult's hand. A candle being held on the opposite side of his head reveals a translucent appearance of the cranium. A scanty growth of hair covers the scalp. An eczematous eruption appears on the scalp.

Physical Examination:—Cardiac sounds healthy. Respiratory murmurs natural. Liver and spleen show no enlargement. Urine contains neither sugar nor albumen.

Treatment:—Let it alone.

Hospital Reports.

[Surgical Clinic of Prof. A. P. LANKFORD, at the Missouri Medical College.]

AMPUTATION OF BOTH FEET AFTER FROST BITE.

Reported by CHAS. A. TODD, M. D., Adjunct Prof. of Surgery.

Mrs. B., aged 32, nativity Ireland.

Jan. 8th, 1873.—Mrs. B. during the intense cold that prevailed at that time, walked about two miles in thin shoes, part of the distance through snow. Reaching home at the end of this walk she found her feet completely benumbed with cold, and immediately adopted the very efficacious plan of thawing the senseless members with the combined aid of a hot fire and a bucket of warm water. Extensive mortification in both feet followed this treatment. Poultices and other home remedies were applied but surgical advice was not sought until July, when some

of the dead bones were extracted, amputation being advised but the patient not allowing it. Mrs. B. subsequently entered St. John's Hospital.

Sept. 9th.—Prof. Lankford removed more fragments of necrosed bone, she still objecting to an amputation. The feet were now reduced to mere stumps, pretty much all the metatarsals being gone. A constant discharge was kept up through the numerous fistulous openings that existed both on the anterior and posterior aspect of the stumps. This, together with the wear upon the nervous system of the patient, brought her at last to consent to the amputation.

Oct. 9th.—The worse conditioned foot was amputated just above the ankle joint, the tissues below that point being too diseased to afford good flaps; indeed, both stumps were but masses of disease.

Examination of the removed foot showed all the tissues to be in a state of sub-acute inflammation. The most of the tarsal bones were reduced through caries to shapeless fragments; the intermediate joints what was left of them, being of course disorganized and suppurating, that between the astragalus and calcaneum alone retaining its proper shape and dimensions. Disorganization had began in the ankle joint as well, its articular cartilage being somewhat softened and in places partially removed. The results of the operation were good, the flaps uniting well and the general health much improving.

Nov. 7th.—Amputation of the other foot was performed in the same way as in the first case. In this foot the os calcis had suffered extensive loss of substance throughout its whole length, it was also studded with osteophytes. In both feet the softer tissues were saturated with inflammatory matter. The muscles were atrophied and the bones were not carious, much rarefied, that is, also atrophied.

Recovery from this second operation ensued in a shorter time, as might have been expected in view of the patient's improved general condition.

Dec. 18th, 1873.—Both stumps healed, and patient in excellent health. It should be stated that the patient had been in the habit of drinking spirits to excess.

This case is interesting as illustrating among other things the effects of extreme cold upon the human body; in this particular

instance intensified through the irrational method adopted for restoration of the circulation in the chilled parts. First is noticed immediate disorganization or death of the parts most exposed, *i. e*, the toes and metatarsus; then, the tarsus involved only to a less degree in the same devitalizing process, rallies, but owing to too great chilling, combined in this case probably with constitutional vice, the attempt is futile and this region of the foot slowly succumbs in the end also to perish under the slower process of molecular death or disintegration. The parts bordering on the diseased tissues but not having been implicated in the original injury, next gradually become involved in the inflammatory action, and so the process extends. Parts whose vitality has been impaired by frost bite are notoriously slow to recover; even a chilblain sometimes proves to be a most troublesome injury, its effects persisting for months. When a limb is so seriously affected that gangrene ensues, the unlikelihood of spontaneous recovery is sufficiently well shown in the case under consideration, in which Nature seems to have given up the attempt at repair and left the process of disintegration to continue its ravages unchecked. The question of amputation after frost bite, as soon as the "line of demarcation" is indicated, and to *include the tissues too much devitalized* to recover from the additional injury of the operation, would seem to have much light thrown upon it by the clinical history here given.

The stumps are now in excellent condition for the adaption of artificial appliances, to take the place of the amputated feet, and there is no obvious reason why such should not be of great practical advantage in locomotion.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

The following was communicated to the St. Louis Medical Society by J. E. Tefft, M. D., of Springfield, Missouri.

A rare case of Dislocation of the Inferior Maxillary Bone.

A female child five years of age, was injured Sept. 27th, 1873, by falling down a steep flight of steps. An hour after the accident I examined the child, and found the following symptoms present:

There was a severe contusion on the front of the chin. The right side of the face—corresponding to the body and angle of the inferior maxillary bone—was largely swelled, though there were no external signs of contusion. The chin was somewhat retracted, and carried to the right side. The incisors were separated, from one-half to three-fourths of an inch. The posterior molar teeth were in contact, though the lower teeth were displaced slightly towards the right side. The right condyloid process could be distinctly felt half an inch above the glenoid cavity, resting upon the posterior root of the zygomatic process. The lower jaw was fixed.

There was neither mobility, displacement, nor crepitus, to show a fracture of the ramus or the neck of the condyle.

Although much surprised at the condition of things, I could only make a diagnosis of an outward and upward luxation of the temporo-maxillary articulation, with a partial fracture, or a bending of the ramus.

Reduction was effected without difficulty by applying force in a direction contrary to the direction of the displacement, the force being applied in a manner similar to that by which reduction of the usual dislocation is accomplished. As soon as the reduction was made, all the usual movements of the jaw could be readily executed, though they were attended with considerable pain.

At the present time, Nov. 16th, there is some chronic swell-

ing over the body and angle of the jaw, and marked tenderness above and behind the glenoid cavity.

The position of the jaw—as shown by the teeth—is natural and all the movements of the jaw are executed with facility.

It is stated by all surgical writers, that a dislocation of the inferior maxillary bone, can only occur in one direction, namely, forward into the temporal fossa; and a careful study of the anatomical relations of the parts involved, inevitably leads to the conclusion that no other displacement can occur in adult life, unless complicated with fracture. Even when accompanied with fracture, Prof. Hamilton was able to find only one case on record.

The question presented in this case is, whether the diagnosis involves an apparent impossibility. In the consideration of that question, it will be borne in mind that the anatomical relations of the temporo-maxillary articulation are different in early childhood, and in adult life. The glenoid cavity is much shallower in early childhood, and the middle root of the zygomatic process which forms the outer margin of the glenoid cavity is very imperfectly developed. The condyloid process is more rounded, not having acquired the extended lateral diameter which is presented in adult life. The bones are so imperfectly ossified, as to possess sufficient flexibility to allow the distance between the two condyles to be increased to a limited extent, without the occurrence of fracture.

The same cause would permit the occurrence of partial fracture (or the so-called Greenstick fracture) which would not present the usual symptoms: preternatural mobility, crepitus, etc. The coronoid process is much shorter than in adult life

Such being the case, it will be seen that, if the jaws are widely separated, so as to bring the extremity of the coronoid process below the inferior margin of the zygomatic arch, a sharp blow upon the chin might produce the outward displacement which was observed in the case under consideration. In this case there may have been a partial fracture of the ramus or of the neck of the condyle on the right side, or there may have been merely a separation of the two rami by virtue of their elasticity. The capsular and external lateral ligaments must have been lacerated, which, however would require but slight force, as they are both very feeble. The internal lateral ligament being long,

and attached at its inferior extremity as low as the margin of the dental foramen, would be relaxed. No impediment would be offered by any of the muscular attachments except the temporal and external pterygoid, which, if not torn, would allow only a limited amount of displacement in that direction, and would tend to produce immobility of the jaw. The distance in a right line from the condyloid process to the last (second) molar tooth, and the distance from that tooth to the extremity of the chin, are nearly equal, and a displacement of the condyle upward, half an inch, would separate the incisors about the same distance.

Of course the relative position of the inferior maxillary bone in this case, suggested the idea of a complete fracture of the neck of the condyle. That accident produces separation of the front teeth, and lateral displacement of the lower jaw toward the injured side, both of which were present in this case. A partial fracture however does not produce these symptoms, and a complete fracture produces also other symptoms, namely: a displacement of the lower extremity of the upper fragment, upward, inward, and forward by the action of the pterygoidus externus; a displacement of the lower fragment upward and forward by the action of the pterygoidus internus and the temporalis: a palpable separation of the fragments; a change in the line of direction of the ramus and the neck; preternatural mobility, and crepitus, neither of which existed here.

Nor in such case can coaptation be maintained after reduction without the use of retentive apparatus. In this case the condyle was plainly and unmistakably felt in the situation indicated. The reduction was readily effected and no retentive apparatus was necessary.

While from the above considerations it is evident that the diagnosis was correct in this instance, yet it is equally evident that such an occurrence must from necessity be extremely rare. Indeed, we should infer that in the vast majority of instances the violence necessary to produce the displacement in question would rather cause extensive laceration of the soft parts, and comminucation of bone.

St. Louis, January 8, 1874.

The St. Louis Medical Society held its annual election of officers, when the following gentlemen were elected:

President, Dr. Garland Hurt; Vice-president, Dr. J. M. Scott; Treasurer, Dr. A. J. Steele; Recording Secretary, Dr. Clayton Keith; Corresponding Secretary, Dr. J. P. Bryson.

The committees elected were as follows: Committee on Election, Drs. Montgomery, W. Gregory, and Prewitt; Committee on Publication, Drs. Johnston, Porter, and Leffingwell; Committee on Ethics, Drs. Porter, Kingsley, and Leete; Executive Committee, Drs. Spenser, Leffingwell, and Glasgow.

A communication was received from the Secretary of the Public School Library, inviting the members to attend the opening of the new reading-room on Saturday night. It was accepted with thanks.

St. Louis, January 10, 1874.

Dr. Spiegelhalter exhibited a post-mortem specimen—an abdominal tumor—which he supposed to be a fibro-sarcoma. It occurred in a boy eleven years old, weighed eight and a half pounds, and had grown rapidly, having reached this enormous size within twelve months. It originated in the mesenteric glands. The intestines were impacted in the tumor. The small intestines, vena cava, and descending aorta passed through the tumor. The transverse colon passed in front of the upper part of it. He found no pedicle—only fibrous connections with the vertebræ. He had made no microscopic preparations, but an examination of the ichorous fluid revealed the presence of a number of small, round sarcomatous cells. He preserved the specimen entire, that he might present it to the Museum of the St. Louis Medical College.

Dr. Prewitt exhibited a post-mortem specimen of cardiac hypertrophy and aneurism of the arch of the aorta, in a patient who had died in the City Hospital. He had diagnosed the case "Pericarditis with effusion and suspected phthisis." The symptoms of phthisis were, dyspnœa, bronchophony and bronchial respiration. Hence paracentesis pericardii was not attempted. In the absence of any cardiac bruit, no valvular disease was suspected. Autopsy revealed the following lesions: pericardial effusion, ruffening of inner surface of pericardium,

aneurism of the arch of the aorta, which had been spontaneously cured, hydrothorax, but lungs were healthy, enlarged bronchial glands, some calcareous, but no tubercular deposit in the lungs, hypertrophy of both ventricles and of the walls of the heart. The valves of the heart were healthy. The aneurism had been spontaneously cured by the deposit of successive layers of fibrin within its walls. We might expect aphonia from pressure of the aneurismal tumor on the recurrent laryngeal nerve; but no such symptom or even a change of voice existed during life.

Dr. Prewitt next reported a case of popliteal aneurism of right leg in a male adult in the City Hospital, cured. Patient was a porter accustomed to lift heavy weights,—after a heavy lift, felt something suddenly give way in his leg, consulted a physician, who, considering it an inflammatory tumor, treated it for an abscess by painting it with tr. Iodine. Treatment in the hospital by Dr. Hodgen consisted in applying tourniquet to femoral artery in Scarpa's triangle, afterwards substituted digital compression. Kept leg flexed two weeks, when the man was discharged with tumor greatly diminished and no aneurismal thrill heard. The result was a complete success. Digital compression was performed day and night by relays of students from St. Louis Medical College.

Dr. Gregory stated the result of treatment of two cases of aneurism at the Sisters' Hospital.

1. A case of popliteal aneurism, now well. Digital compression was the treatment, though a card compressor was afterwards used. The case was under treatment two months, during which time the leg was held at an acute angle by means of a bandage. The tumor had been reduced from the size of a hen's egg to that of a partridge. It ceased to pulsate on Christmas day, and since then the patient has attended to business as usual.

2. In a case of double iliac aneurism, that on the right side extending up to its bifurcation from the aorta, was treated by chloroforming the patient, and applying a compress—a Skey tourniquet—which the patient now uses himself.

Pulsation in this tumor has diminished until coagulation is supposed to have resulted.

The aneurism on the left side, however, is increasing Effi-

cient pressure could not be made on the distal as on the cardiac side of the tumor. General condition of the patient is bad, and aneurism also of the aorta is suspected. We might inject ergotine, Langenback has advised it, injected, not directly into the vessel, but into the connective tissue surrounding the artery. Might also use the persulphate of iron, taking the precaution to make efficient pressure both above and below the aneurism, to prevent its entrance into the circulation, keeping the limb flexed also.

We have had to-night, said he, reports of two cases of aneurism *cured by compression.* It was a source of congratulation to every surgeon to know that we can now succeed in the treatment of aneurisms without resorting to the use of the knife and ligature. The older he became, the more he admired bloodless surgery. The reports to-night were a source of pride to him. In the treatment of the case reported cured, he said he had almost despaired of success during the first month. But that he never desisted in the use of pressure, laboring almost against hope. I am, said he, satisfied that compression in a large majority of cases, will cure aneurism. Dr. Hodgen remarked that the amount of pressure applied, in the case reported by Dr. Prewitt, was largest at first. Treatment was begun with a pressure of—say ten pounds—(more or less), afterward less pressure was used, and so on until finally one-third or one-fourth the original pressure would cause pulsation to cease. He could not too strongly urge the exercise of persistent effort in the application of pressure in case of aneurism. We should not attempt to cut off the circulation completely at first, but allow the collateral circulation to become established.

Dr. Gregory suggested that pressure was beneficial even if it were found necessary to resort to ligature finally. There was much less danger of gangrene ensuing.

He next reported a case in which he had removed a lady's hair pin from the bladder of an adult female. He chloroformed the patient, passed ordinary dressing forceps of pocket case through the urethra into the bladder, then gently nicked the urethra, and finding the points of the hair-pin presenting toward the urethra, he turned the curve of the pin towards the urethra, and removed it with his finger. Pin had been in the bladder three weeks, and was slightly encrusted. Patient could not tell how

it was introduced. Woman was in good health, of sound mind, mother of four children, but evidently somewhat hysterical.

Dr. Prewitt next reported two cases of trichinosis in City Hospital. They were husband and wife, German, and could speak no English. On admission they complained of pain in their limbs, and were supposed to be suffering from acute rheumatism, and put on the alkaline treatment. Afterwards he learned that the pain was located in the muscles and not in the joints; and that they had been eating raw ham, smoked and chopped up, and sausage, and that gastro-intestinal trouble first appeared, and afterward the pain in the muscles. Had been sick only four days when admitted to Hospital. The only treatment he used was to keep their bowels open. If any member could suggest any additional treatment, he would thank him.

Dr. McDowell remarked that two winters ago, a microscopic examination was made of the subjects in the dissecting room, and that five out of every six contained trichina; and yet they were not reported as having died from the effects of trichina. He thought the existence of trichina in human flesh of rather minor importance; and that the trichina spiralis was commonly found encysted.

Dr. Rumbold had just examined a piece of pork given him by Dr. Edgar for that purpose, and, under the microscope, found seventeen to one fourth square inch—all were non-encysted.

The Society adjourned.

St. Louis, Jan. 17, 1874.

Dr. Prewitt, exhibited a *post-mortem* specimen illustrating the treatment of stricture of urethra, in a patient who died in City Hospital. Patient had been, by occupation, a druggist, and had long been dissipated. Had had gonorrhœa repeatedly, stricture for several years, and frequent attacks of retention of urine. On admission there was complete retention of urine,—while blood was passing from the urethra, caused by attempts made to force a passage through the urethra and introduce a catheter. He introduced a filliform bougie at first attempt, but second attempt failed on account of the inflamed and lacerated condition of the urethra. He then introduced the aspirator above the pubis and drew off the urine; and subsequently introduced, a curved trocar and canula through the rectum into the bladder to allow the constant exit of urine. Man died and autopsy re-

vealed lacerated condition of the urethra mostly on the scrotal side, not much on pubic side; caused doubtless by pushing the point of the catheter through the urethra—making false passages. Gangrene had already begun—no inflammation, however had resulted from introduction of aspirator into the bas fond of the bladder. He had received several similar cases into the hospital—all caused by unskillful attempts of inexperienced physicians, old and young, to introduce the catheter.

One case of trichinosis mentioned at last meeting had died; and on microscopic examination Dr. Dean found an abundance of non-encysted trichina, still living and moving in the flesh of the patient.

Dr. Gregory remarked that as a rule, in cases of retention of urine, from stricture, after the urine has been evacuated as in the case just reported, the stricture readily becomes amenable to treatment and can be easily catheterized. The surgeon's rule is to keep the point of the catheter well up towards the pubis, for, if the instrument become entangled, it almost always occurs on the scrotal side, as specimen shows was true in this case. In strictures however, all rules fail. As surgeons we must for the time forget our anaomy of the parts in order to enter the stricture successfully. There seems to have been in this specimen but little dilatation of the urethra behind the stricture. This is contrary to the general rule in such cases.

Dr. Hodgen exhibited a specimen of diseased ankle joint, amputated a few days previous at upper part of lower third of leg. Patient had suffered eight months—had received no appreciable injury to the foot or the leg. The disease involved actively the articular surfaces of the tibia, fibula and astragalus. The bones were exceedingly light and soft, could be easily penetrated with the scalpel. The medullary cavity was enlarged from disuse—Nature seemed unwilling to support a tissue that performed no service in the economy. Calcareous matter had been lost, and fat had taken the place of the true bony tissue. The Haversian canals had increased in caliber. The lacunæ and canaliculæ were also enlarged. In a specimen amputated immediately after the injury, the bone was very firm and ivory-like. The stump became tender, and another part had to be removed—the bone excised the last time was soft and light—so

soft he could readily cut it with his knife, and so light that it floated on water after being dried.

Dr. Gregory remarked that as a rule the material furnished instead of the tissues is a cheaper material than the original structure. Fat furnished in this case instead of bone is cheaper than bone. And yet it seems that fat is a little above the lime salts in the physiological scale. Some have attempted to solve this problem by supposing that an acid (e. g., acetic) is first produced, and that the lime salts are disolved by it and fat then takes their place. Inflamed bones always become lighter. He maintained that after a tissue has been injured it is always repaired by an inferior tissue. Cartilage after injury is always repaired by bone, and bone is relatively lower in the scale than cartilage. He supposed that, as we attain to manhood, our bodies attain nearer to perfection and our tissues then represent this highest order in the scale. While in the fœtus, however, our skeletons were entirely cartilaginous, showing that as we reach perfection many of our tissues pass through lower and still lower grades on their way to the most perfect form.

Dr. Hodgen said the lime salts certainly appear cheaper than fat *in some localities.* Fat is produced more easily and abundantly in the human organism than the lime salts. Lime is found in the inorganic world, while fat occurs in both vegetables and animals and is therefore higher in the scale of organization. Muscular and nerve tissue are considered high in the scale, while bone tissue is low.

He said, referring to Dr. Prewitt's case, we frequently meet with cases of enlarged prostate gland in old men, in which it is difficult to introduce the catheter, not because the caliber of the urethra is diminished but because the course of the uretha has changed. After attempting to introduce the ordinary catheter and failing, he had succeeded by using a long gum catheter with a large curve. The bladder had risen up higher in the pelvis and the prostatic portion of the urethra had become much longer. We find old men's catheters for sale in the shops. No one, said he, has sufficient knowledge of the anatomy of the urethra *to guide* a catheter through the ligament of Camper. the Surgeon must allow the catheter to take its own course. *Never use force.*

Dr. Gregory reported a case for which he had operated.

of atresia vagina, The vaginal orifice was entirely occluded, could not even pass a probe. He found a tumor and felt fluctuation, where the opening ought to be, and feeling certain that menstrual fluid was imprisoned, he passed a grooved director and with bistoury cut an inch of tissue and evacuated the fluid. He washed out the cavity with a uterine douche, daily, for a week and then introduced a glass plug, used by Sims. No fever ensued, although air was admitted to these parts. Patient was eighteen years old, and had never menstruated.

Dr. Boislinere said this may have been a case of double and imperforate hymen,—such cases are on record,—Velpeau saw a virgin in whom there were three hymens. It is well in operating on such cases to go slow. Deaths have resulted from large cuts here. He next related a case of artificial atresia, vagina, caused hy another physician, using nitric acid in treating some uterine disease. Dr. Boislinere operated by introducing a male catheter into the urethra and raising it out of harm's way, least he produce vesico-vaginal fistula. He was very careful about applying strong caustics, e. g., arg. nitr., nitric acid, chromic acid, bromine, etc. He used Ferguson's speculum and protected the vaginal walls well with cotton.

Society adjourned.

ST. LOUIS MICROSCOPICAL SOCIETY.

January 8, 1874.

The Society held their annual meeting at their hall in the Polytechnic.

Seven members present.

The President, Dr. Dean, being in the chair, the following gentlemen were elected as officers for the ensuing year:

President, Dr. Spiegelhalter; Vice-president, Dr. George J. Engelmann; Treasurer, Dr. A. J. Steele; Recording Secretary, Dr. T. F. Rumbold; Corresponding Secretary, Dr. Homer Judd.

Committee on Elections: Drs. W. S. Edgar, D. Morrison, D. C. Spinzig. The Library Committee to be appointed by the President for 1874.

The Treasurer's report showed a balance in favor of the Society.

Dr. Rumbold showed some specimens taken from a ham studded with trichinæ, showing the animal coiled but not encapsulated.

Dr. Steele spoke with regard to the value of a careful study of the epithelial cell as a most important means for the differential diagnosis in diseases of the urinary organs, when often the microscope alone, by revealing the kind of epithelial cell found in the urine, points to the seat of the disease.

After some discussion upon a paper read before the Society at their last meeting by Dr. Rumbold, on the "Nature of the Secretions of the Eye and Ear," Dr. Dean contesting the views held therein, the Society adjourned.

GEO. J. ENGELMANN, M. D., *Secretary.*

Reviews and Bibliographical Notices.

SKIN DISEASES: Their Description, Pathology, Diagnosis, and Treatment. By Tilbury Fox, M. D., Lond., Physician to the Department for Skin Diseases in University College Hospital, etc., etc. Second Edition, re-written and enlarged. With a Cutaneous Pharmacopœia, a glossarial index and sixty-seven additional illustrations. New York: William Wood & Co., 27 Great Jones street. 1873. pp. 582, 8vo.

[For Sale by Gray, Baker & Co.]

The name of Tilbury Fox is familiar to every reader of medical literature; and his work on *Skin Diseases*, the volume before us, is the third edition, English, second American; and the author says, "In fact it is practically a new one. It has left my hands re-written, and with the matter recast, re-arranged, and re-illustrated * * * and may be looked upon as containing the latest, fullest, and best practical information of any book on the subject of skin diseases." "There is not a page without new matter." Two diseases are described in detail for the first time,—fibroma fungoides, and dysidrosis. [Preface.]

The American editor says, that the author had "so completely

anticipated all the wants and essentials of a complete work on skin diseases, that I have had no opportunity of doing more than revise the work as it passed through the press."

The author deems it no longer necessary to comment, as in a former edition, on the importance of a careful study of skin diseases. The advantage of such study is too evident. In the *Introductory Remarks* he says, "*What not to do*—what to avoid—in treating skin diseases,—is an important lesson to learn. * * He who would be a successful dermatologist, I have always held, and hold more strongly than ever, must also be a proficient in the principles of general medicine." This is sound doctrine.

On the mode of studying skin diseases.—Before laying down his thirteen rules, and summary, he presupposes that no one comes to the task of studying these diseases "without a fair knowledge of general medicine."

1st. The case must be examined thoroughly. "The observer should always strip his patient so that the disease may be exposed to the fullest extent compatible with a due regard to the proper feelings and sensitiveness of the individual." We must not be satisfied with seeing a bit of a patch of disease where it is most marked.

2nd. A disease must be studied as a whole. "Mere *stages* of a disease should be regarded as stages and nothing else. Diseases must be dealt with in their entireties." * * * It may be asked "why be so particular? For the very reason that the confusion of stage and variety leads to errors of diagnosis." It has caused confusion, and a multiplication of names, when there existed only stages of one disease.

3rd. "A clear distinction should be drawn between *essentials* and *accidentals*." The instance of scabies is given. The acarus is the essential—the accompaniments, irritation, etc., etc., are accidental. Another example of an accidental is found in œdema occasionally occurring in eczema.

5th. The primary anatomical seat of the disease should receive special attention. "Now, theoretically, diseases of the skin must arise in disorder, in the first instance, of either (*a*) the blood, (*b*) the tissues, intimately and anatomically considered as cells or fibres, or (*c*) nerves, or (*d*) the vessels—blood or lymphatic."

Dermatology is not as yet prepared for an anatomo-patho-

logical classification. Under the second head as given above, we may by easy transition run into cellular pathology. Under this fifth rule of study an immense field is opened. The author has not elaborated the different subjects that here present themselves, but has judiciously suggested some of the mutual relations of nerve and blood supply, and cell action:

"In vaso-motor disturbance of course hyperœmia is primary, and in trophic nerve mischief, if such exist, textural alteration comes first. But the two, tissue and vessel, may be simultaneously affected no doubt. In pityriasis rubra for instance, it is likely that this is the case."

8th. Under this rule we will quote one remark in reference to diseases as they are connected with age: "But to put what I wish to enforce in a few words, I may say that as regards *kind*, the diseases of children are the result of mal-nutrition from deficient or bad feeding; those of the adult, the result of mal-assimilation; those of the aged, the result of degenerative changes. As regards complications, diseases of the young are often closely connected with the strumous diathesis especially; those of the adult with functional derangements of internal organs and mal-assimilations, such as dyspepsia, hepatic and renal torpor—and with diathetic conditions, phthisis, rheumatism, and the commencement of gout; those of the aged are linked with nerve pareses and degeneration of the skin, as evidenced by increased pigmentation, atrophy of the glands, and of the nerves in the papillæ and also with organic diseases of important internal organs. All this is important therapeutically." The above is quoted on account of its practical bearing, especially in chronic cases.

12th. The importance of recognizing the changes or modifications produced in diseases of the skin by the existence of the various diatheses, especially the syphilitic, but also the gouty, the strumous, and the nervous. "The modification of skin diseases by the syphilitic poison (that is, the modification which skin diseases tend to, and very frequently undergo in syphilized subjects,) is a most important fact, and one that, as far as I know is not duly appreciated by any writer or teacher on the subject." This we can most heartily endorse; and every observer in hospital must have been impressed with the manifold shades under which the venereal taint may assert its presence.

"I believe that the efficacy of so-called alterative doses of bichloride of mercury in chronic affections is really to be explained by the presence of a syphilitic taint in many cases."

"*The anatomy of the skin*" is well illustrated by plates from Neumann, Pagenstecher and Biesiadecki, though the impress is not as clear and sharp as those in Henle.

Of the *Papulæ* among the *elementary lesions*, the author makes out six kinds. Some of the distinctions would certainly be recognized only by an expert.

"The origin of exudation cells and pus cells in zoster, eczema and variola, is still a matter of doubt. They may be altered connective-tissue corpuscles, as Biesiadecki thinks, or migrated white blood cells escaped from the vesels, or they may be altered and proliferating rete cells, or their nuclei, as Neumann believes."

Under *secondary changes* he remarks respecting crusting: "But there are two classes of cases I may make. In one crusts form in connection with sero-purulent secretion without ulceration, in the other they are consequent upon distinct ulceration." * * "If the discharge be mainly serous, they are thin, light, filmy crusts, as in impetigo and simple eczema; if the discharge be mainly purulent, they are thick, yellow and distinct crusts as in eczema impetiginoides. The free formation of purulent crusts in young or old, which is not explained by inflammation of great intensity, is indicative of the presence of a pyogenic habit, or what is almost synonymous, the strumous diathesis." We agree with the author that this is a point of the greatest practical importance.

As an example of disordered tissue-life, "I should give that of cancer; the local tissue changes are not sufficiently explained by any alteration in the blood current."

We may say, the changes are not *sufficiently explained in any way.*

Of inherited cause or susceptibility. While the following assertion of the author is not susceptible of demonstration, yet he gives it as his opinion, "that certain tissue peculiarities may be inherited. The father may transmit dispositions in tissues to behave in particular ways directly to the child, as a local peculiarity, independent of any blood state, and in this sense psoriasis, cancer, ichthyosis may be hereditary." This is probably as nearly the correct theory as any.

Two sources of local irritation should receive our consideration: the use of *flannel* worn next the skin, and *scratching*.

The wearing of flannel may not disturb a person when in perfect health, yet when the skin is affected, it may produce an intensification of pruritus, or an aggravation of the disease to an intolerable degree. The course to pursue in such a case is to "take off the flannel from next the skin and place it, if necessary, outside the linen; this will prevent any 'catching cold.'" "A remembrance of this little practical point will sometimes give us the greatest cause to be thankful that we attended to it, trifling though it be."

For practical purposes, under *therapeutics*, diseases are placed in three groups: (1) *purely local;* (2) *local*, modified by constitutional conditions; (3) and those which arise primarily or directly from constitutional conditions. In the first, local treatment alone is necessary; in the second, local is primary and general treatment is secondary; in the third, the order of the second is reversed. On the *general principles of local treatment of the hyperæmias*, we find the following judicious remarks: The object of our local measures is three-fold: (1) At the outset, to *moderate* diseased, especially inflammatory action; (2) to *protect* the diseased, and therefore weakened parts, and at length (3) to *t imulate* with a view of arousing the dormant tissues into due activity, and causing the removal of morbid depositions and formations."

He refers a second time, if possible to impress it upon the mind of the student, to the two sources of irritation—the wearing of *flannel* next the irritable skin and *scratching*—and we can afford to repeat it. The diseases especially referred to in this last paragraph, are nettlerash, pruritus, eczema, scabies, the erethemata, etc.

Alkaline baths to moderate irritative action in the skin are recommended, such as "bicarbonate of soda, 2 to 4 ounces, size from 4 to 6 or 8 lb., poppy, and bran." When the parts are excoriated it is important to protect the denuded surface, and prevent evaporation. The old "Kirkland's neutral cerate"* is the

* Kirkland's neutral cerate: Take diachylon, eight drachms; olive oil, four ounces; prepared chalk, four ounces. When nearly cool, add: Acet. destill. four ounces; plumb. superacetat, two drachms.—R. Dunglison.

best application of which the author has any knowledge to allay irritability and protect the excoriated parts.

"*Summary.*—From the foregoing observations [a few only of which we have noticed], I hope it will be evident that the treatment of skin diseases consists in something more than the prescription of arsenic. The invariable answer I obtain to the question, 'Why do you give arsenic?' is this: 'Well, you know, one does give it!' or, 'What else can we give?' I have attempted to show that it is impossible to formulate a particular treatment suitable for all cases of any one disease—to say, this or that man has this or that disease, and therefore must have this or that treatment. Most cases require a combination of medicaments, suited not only to the disease itself, whatever that may be, but also to varying individual peculiarities in the patient, and concomitant circumstances. I think it needs the knowledge and tact of the physician to make such a combination a happy one. Further, I have especially dwelt upon the need of a more soothing and less stimulating plan of treatment in the congestive stages or phases of all cutaneous disorders."

The above quotations are selected from the first seventy-nine pages, which are devoted to general principles, and which we hope will give the reader some idea of the character of the work as to the comprehensive nature of the views taken of the subject. The remainder of the volume is occupied with special diseases.

The "cutaneous pharmacopœia" is very full, and is selected from the most eminent authors.

Fox's "Skin Diseases," we presume, will be the American text-book for some years to come. The language of the author is generally clear, with, however, some repetitions; and occasionally the common error of using the word expect for suspect is found.

There are more typographical errors than are usually found in Mr. William Woods' publications, indeed, they are quite too frequent. G.

A MANUAL OF PRACTICAL HYGIENE, intended especially for Medical Officers of the Army, and for Civil Medical Officers of Health. By Edmund A. Parkes, M. D., F. R. S., Professor of Military Hygiene in the Army Medical School, etc., etc.

Fourth Edition. Philadelphia: Lindsay & Blakiston. (American reprint.) 1873. 8vo. pp. xxiv, 672.

This Manual, still unrivalled in our language, had, in the first edition, to deal with only one sex, a certain age, and a particular trade; but the general principles of hygiene were so fully discussed that it was called a work on general hygiene. In this enlarged and carefully revised edition, the purely military part has been transferred to the Second Book, so as to put the work in a form adapted for civil medical officers. It should not, however, be limited to the shelves of medical officers. Sanitary science, whose aim is the prevention of disease, the preservation of health and prolongation of life, public and private, belongs to the education of the masses who cannot be dragooned, but must be educated to a recognition of its ends, and an application of its methods; while the sanatory or healing art, hitherto occupying the foreground, belongs to the few. Such a work should be in the hands of every physician, if not of every scientific or general reader. Not intended as an encyclopædia, it cannot embrace all the rapidly accumulating minutiæ in its domain; and much from the literature on the various points is better overlooked than included. They, who have time and the necessary training for pursuing such studies further, will prefer going to the original sources. The judgments seem, in the main, to be well taken, and the references are, perhaps, as numerous as is compatible with the size and design of the book. For the author says that, although much new matter has been added, and some parts of the book have been greatly enlarged, he has exceeded the size of the last edition only by thirty-two pages; though he has been obliged to sacrifice something, to keep the size so nearly the same. We count just thirty-two pages more between the finis and the last cover, occupied with the publishers' advertisements of their publications, and cannot but feel, as we always have, that where bulk and weight are matters claiming so much consideration, publishers should give way to authors. Works likely to undergo frequent revisions, are seldom stripped for re-binding; and half our text-books are blemished with this apology about a few pages, and cumbered with as many pages more of advertisements. In this instance, the space might be usefully devoted to a judiciously selected

bibliography. Especially valuable would such an addition be in this country, where sanitary boards and officers are so often drawn from persons having had, and having, but meagre facilities for obtaining a knowledge of urban sanitary laws, and of the history and present state of sanitary science. Few such boards here, have even the nucleus of a library to which the members and officers can refer.

This edition is on good paper and well printed, barring a few typographical errors: *e. g.*, p. 355, second line; p. 205, in the table from Ritthausen, the per cent. of carbon in casein is given at 25.94, instead of 52.94, as in the original; of the five errata, bottom of page xviii, four contain each an error; practically unimportant, but really inexcusable errors occur, in the titles of German works given in the foot-notes, from cover to cover, as also in some of the proper names in the text, as Subbotin for Ssubotin. The second foot-note (p. 250), wrong in the previous editions, is useless here.

Again, the only introduction the work needs is to more shelves.

D. V. D.

LECTURES ON CLINICAL MEDICINE. By A. Trousseau, late Professor of Clinical Medicine, Paris. Translated from the Third revised and enlarged edition by Sir John Rose Cormack, M. D., F. R. S. E., and P. Victor Bazin, M. D. Complete in two volumes. 8vo. pp. 925 and 956. Philadelphia: Lindsay & Blakiston.

[For Sale by the St. Louis Book & News Co.]

Our readers will be pleased to learn of the recent enterprise of Messrs. Lindsay and Blakiston, in re-publishing the great work on clinical medicine by Trousseau, complete in *two volumes;* thus bringing the work within the reach of all who are actively engaged in the practice of medicine.

The researches concerning *temperature* in disease, granular and waxy degeneration of muscles, leucocytosis in typhoid fever, the spinal and cerebro-spinal type of typhoid fever, the application of the sphygmograph in diseases of the heart and in epilepsy, the laryngoscope in lesions of the lungs, and the ophthalmoscope in cerebral affections, are fully up with cotemporary science on these subjects.

The chapters on *marsh fevers* might be supposed of indifferent value, as a guide to the practitioner in a malarial region, as the

writer resided in the midst of Paris; but on examination of the work, we find three epidemics of malarial disease had occurred in Paris, one on the building of a canal which enters the city, one on the construction of the sewers of the city, and the third on laying the foundations of the defences of the city, affording the great master of clinical observation, ample opportunity to instruct his pupils in a class of diseases which prevail more or less in every portion of the habitable globe.

The colloquial style and eloquent diction entice the student at leisure, while its copious index and methodical arrangement admirably adapt it to the wants of the busy practitioner for reference. No work substitutes it, hence, no medical library is complete without it. An enduring monument of the wisdom and eloquence of the gifted author.

THE PRINCIPLES AND PRACTICE OF MEDICAL JURISPRUDENCE. By Alfred Swain Taylor, M. D., F. R. S., Fellow of the Royal College of Physicians, Lecturer on Medical Jurisprudence, etc. Guy's Hospital. Second Edition, in two volumes, with numerous illustrations, 8vo. pp. 724 and 672. Philadelphia: Henry C. Lea, 1873.

[For Sale by the St. Louis Book & News Co.]

The author informs us in his preface to the American Edition, that when he was a medical student at Guy's Hospital in 1825, no lectures were delivered in England on Medical Jurisprudence; that the leading authority for lawyers and medical men in England at that time was Dr. Beck's work, entitled "Elements of Medical Jurisprudence," by Theodoric Romeyn Beck, Second Edition, with notes, by Wm. Dunlop. That it was the interest awakened in him by the study of this book that gave direction to his after studies, inducing him to put aside other studies, for this new branch of medical study, which he pursued in the schools of England, France, and Italy, for six years; when he received the appointment of Lecturer on Medical Jurisprudence at Guy's Hospital in 1831, and has delivered a course of lectures annually in the medical schools of this hospital since. He is highly gratified to feel that the country which gave birth to the late distinguished Dr. T. R. Beck, has so highly appreciated his contributions to the literature of the subject; thus enabling him to make some return to the country which gave birth to the man whose excellent treatise had given direction and impulse to his

early studies. This preface concludes, "Dr. T. R. Beck has passed away, but his work which had reached a tenth edition in 1851, will carry down his name to future years, as one of the most erudite and distinguished writers on *Medical Jurisprudence.*" We quote this to show the spirit of our author, and that he is not to be classed with our transatlantic brethers (if there are any) who are not always as generous or just to American authors as they might be.

In this edition we are informed that "every page has undergone revision, and such alterations and additions have been made as the progress of time had rendered necessary." The chapters have been increased from eighty-seven to one hundred. Notices of new poisons have been introduced, new methods of research for detection of blood stains, including spectral analysis, and the guiacum process. Additions to the chapters on death from asphyxia, starvation, also criminal abortion, infanticide, insanity, and life insurance.

This work is illustrated by three hundred and twenty-five engravings, many of them of the finest workmanship.

The author is too well known to the profession, and the public, to require review or commendation from us, further than to call attention to the fact of a new edition, and to some of the numerous additions by the author, after an experience in teaching and critical study of this speciality for near half a century—a life work eminently monumental of a great and generous man.

The reader meets clear type on good paper, with evidence of careful proof-reading, for which the publishing house of Henry C. Lea has an acknowledged reputation.

A Hand-book on The Theory and Practice of Medicine. By Frederick T. Roberts M. D., B. Sc., M. R. C. P., etc. Philadelphia: Lindsay & Blakiston, 1873. 8vo. pp. 1052. Price $5.

[For Sale by the St. Louis Book & News Co.]

For several weeks we have had this book on our table, to turn its pages as often as cases of interest presented; to ascertain by experience how well the work is adapted to the wants of the busy practitioner, and "so far," we find it an admirable book, indeed know of no hand-book on the subject just now to be

preferred to it. As a help to medical students to prepare for their final examination for the degree of Doctor of Medicine (for which the author especially designed it,) it must be well up to the front on all important themes, which we believe to be the fact, while the statements are clear and concise, therefore intelligible and easy to be remembered.

We particularly commend the book to students about to enter upon the practice of their profession. Whether what we know of the practice of medicine can be stated in one volume of 1000 pages or not, depends upon the wisdom to omit what *is not known;* this merit of omission is quite prominent with our author.

BOOKS AND PAMPHLETS RECEIVED.

THE LEPROUS DISEASE OF THE EYE. With six colored plates. By Dr. O. B. Bull and Dr. G. A. Hansen, Christiana. Minneapolis, Minn.: Albert Commeyer. 1873.

GALVANO-THERAPEUTICS. A revised reprint of the report made to the Illinois State Medical Society for 1873. By David Prince, M. D., Jacksonville. Philadelphia: Lindsay & Blakiston. 1873.

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY. Ninth annual meeting, Newport, July, 1873. New York: Wm. Wood & Co. 1873.

CLINICAL RESEARCHES IN ELECTRO SURGERY. By A. D. Rockwell, A. M., M. D., and Geo. M. Beard, A. M., M. D. New York: Wm. Wood & Co. 1873.

[For sale by Gray, Baker & Co.]

TRANSACTIONS OF THE TWENTY-THIRD ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY. 1873. Chicago: Fergus Printing Co.

RELATIONS OF COLORADO TO PULMONARY CONSUMPTION. By Thomas E. Massey, A. M., M. D. Denver. 1874.

MEDICAL EXAMINER. Volume 14. 1873. Neatly bound in cloth. Chicago: J. J. Spalding.

We heartily thank our esteemed contemporary for this favor of transferring from the dusty "pigeon hole" to the book shelf, material so worthy of preservation.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY, for 1873.

TRANSACTIONS OF THE NEBRASKA STATE MEDICAL SOCIETY, for 1873.

REPORT OF THE HEALTH OFFICER OF SAN FRANCISCO, for 1873.

THE ORIGIN AND PROPAGATION OF DISEASE. An anniversary discourse delivered before the New York Academy of Medicine, November, 1873. By John C. Dalton, M. D., Prof. of Physiology. Published by order of the Academy. New York: D. Appleton & Co. 1874.

The Technologist or Industrial Monthly for January is received. This journal issued by the Industrial Publication Company, 176 Broadway, New York, should be in the hands of all who are or are not already interested in industrial progress. The time is near when education of the majority of youth will mean *instruction in the industrial pursuits*, whereby they may secure a *livelihood* as soon as they attain to their majority, instead of being taught to ape the manners and vices of million heirs. After the child is twelve or fourteen years old, education at the public expense at least, should mean instruction in the use of the *hand* to accomplish some service of value to the community, to the State, and to mankind; that the youth may be prepared to enter some of the fields of useful labor always in waiting for them.

G. P. Putnam's Sons, New York, have in preparation a translation by Doctors M. D. Marni and S. B. St. John, of the recent work of Professor Ludwig Buhl, of Munich, on *Inflammation of the Lungs, Tuberculosis and Consumption.*

Extracts from Current Medical Literature.

Acute Uræmia. By Alfred L. Loomis, M. D., Prof. of Institutes and Pract. of Medicine, Medical Department University of the City of New York. (Read before the New York Academy of Medicine.)

Under the above title, Dr. Loomis groups "two classes of symptoms which differ in their mode of development, and in their attendant phenomena." In one, which has been called uræmic convulsions, nausea, vomiting and headache are followed by twitchings and epileptiform convulsions of the voluntary muscles; while in the other—uræmic coma—the headache and drowsiness, or convulsions, are followed by insensibility. *The primary cause* of these conditions is the retention of the poisonous elements of the urine from suppression of the renal secretion from whatever cause, such as may occur "in scarlatina, in the different forms and stages of Bright's disease, in the puerperal state, and in connection with the surgery of the urethra." Whatever be the poisonous agent (which he believes to be urea), "it unquestionably acts directly upon the cerebro-spinal centres," increasing the irritability of the nervous system, and the consequent liability to convulsions from causes which, under other circumstances, would produce no noticeable disturbance. He accepts the view "originally proposed by Willis" namely, retained urea as the cause of uræmia, as now held by most authorities.

Frerich's statement, of urea being decomposed in the blood by a ferment, and the carbonate of ammonia resulting therefrom acting as the poisonous agent, has been disproved and abandoned.

Fraube's theory is that "the blood-serum, being impoverished, tends to transude, and in consequence of hypertrophy of the heart, the blood-pressure in the arterial system is increased; so when from any cause this blood-pressure is suddenly increased, or the density of the blood-serum is further diminished, serous fluid transudes through the small arteries, and œdema of the brain results. * * Consequently the

capillaries and veins are compressed, and the brain becomes correspondingly anæmic. The form of uræmic convulsion varies according to the part of the brain which is so affected. If the cerebrum alone is involved, coma appears; if the pons varolii and medulla oblongata alone, convulsion; if both together be affected, the result is combination of coma with convulsions." This is a hypothesis, but worthy of consideration, still it does not seem to explain uræmia in acute cases. Oppler thinks it is caused by "an accumulation of creatin and creatinin in the blood."

"Experiments and facts upon which different theories are based lead to the following conclusions:

"1st. That uræmic toxæmia, acute and chronic, depends on a complete or partial arrest of the urinary secretion.

"2nd. A qualitative analysis of the constituents of the urine goes to show that urea is its only positive poisonous ingredient, and, 'that *it* is not the special product of any one particular tissue or organ, but the united product of all nitrogenized effete matter.'

"3rd. Numerous experiments show that urea when introduced into the blood of animals, acts as a narcotic poison, producing phenomena identical with those of uræmia.

"4th. That urea is not decomposed into carbonate of ammonia, and water in the blood, but that such decomposition may take place outside the blood-vessels in the bladder, pelvis of the kidney, and intestines; and if the products of the decomposition are retained in these cavities any length of time, they give rise to a condition of ammonæmia, which in many of its features resemble uræmia.

"While, therefore, the question as to the exact poisonous agent in uræmia is still unsettled, it seems to me that the facts relative to urea warrant the assumption that urea is an irritant poison, and when in excess in the circulation acts primarily upon the cerebro-spinal centres, and through them interferes more or less with the functions of organic life,—and that œdema of the brain and other structural changes which occur in the course of uræmia are the results of the action of this poison."

The system may become accustomed to the presence of the poison by its gradual introduction; but the balance may be suddenly lost by embarrassment of the kidneys from whatever

cause, the nerve-centres become overwhelmed, "and thus acute uræmia may be developed in the course of chronic as well as in the acute stage of renal disease."

The previous history, and the examination of the urine either or both will generally be sufficient to point to the differential diagnosis.

Cause of Death in Acute Uræmia.— * * * From the many facts, experiments and statements made by competent observers, as well as the clinical history of uræmia, it is evident that the primary cause of death is a narcotic poison, the exact nature and action of which we do not understand; that the primary action of this poison is on the nerve-centres producing certain changes in the blood which interfere with or arrest oxygenation; and this is followed by certain structural changes taking place in the different tissues of the body which make up the *post-mortem* history of the disease."

The special object of the paper is the consideration of *the treatment of acute uræmia.*

The author says "the favorite method (with most authorities) is diaphoresis, accomplished by vapor or hot air," in order to get the vicarious action of the skin. Drastic purgatives also have been given with the same object—vicarious action. "The testimony of authors on the utility of diuretics in the treatment of acute uræmia is conflicting. * * The ground on which diuretics are objected to is, that it is contrary to the principles of medicine to stimulate an inflamed part,—that the first step towards the healing of an inflamed organ is rest.

"Admitting that this view is sound, we have a class of diuretics that do not in any sense act as stimulants to the kidney. Digitalis ranks first in this list; although a very efficient diuretic, it never seems to irritate the kidneys. The *modus operandi* is, by increasing the heart's action, and perhaps also contracting the capillaries, it materially increases the blood-pressure. The normal secretion depends upon that pressure unopposed by any obstruction; the diminished flow is due to obstruction within the tubules; the digitalis seems to supply such an increase of pressure as to overcome the obstruction, and carries it away by the force of the current it originates.

"Accepting this view of the diuretic action of digitalis, its administration is especially indicated in acute uræmia."

He gives it in large doses: "My rule of practice in these cases is to give half an ounce of the infusion of the English leaves every three hours, for twenty-four hours—or at least till I produce the specific effect of the drug—and I do not remember in a single instance to have met with the overwhelming accumulative effects of digitalis, of which so many writers warn us.

"The experience of every one, I think, will sustain me in the statement that when acute uræmia is fully developed, and the patient is in convulsions or coma, that often (in the majority of cases) the skin and the bowels, as well as the kidneys, lose their excretory action, diaphoresis cannot be induced, or if induced, not eliminative, and the bowels do not respond to purgatives, although the patient may swallow them in large doses." Under these circumstances, Dr. Richardson would bleed. Dr. Harvey is quoted as saying, that in some cases of acute uræmia, especially uræmic eclampsia, venesection may sometimes be had recourse to with great advantage, but its indiscriminate use he regards as highly unphilosophical with our present knowledge of uræmic convulsions. And Dr. Baun is called to testify that he believes venesection can be justified as little by the present state of our theoretical knowledge in regard to this disease as it is by the mortality which follows its employment. "By bleeding, the hydræmia is increased as well as the danger of puerperal thrombosis and pyæmia, and not unfrequently the paroxysms are aggravated.

A very strong argument against venesection in acute uræmia, is the fact that, after extensive trial by the profession, the practice has fallen into disuse." "The question then comes to us, * * what means have we to counteract the effects of this poison and open again the avenues of its elimination, or, at least, to hold the patient until the normal eliminating process shall be re-established?" The first thing "is to diminish reflex sensibility, and subdue spasmodic muscular paroxysms." Chloroform has been regarded as the readiest and safest means for controlling uræmic convulsions. "In the few cases in which I have administered chloroform in non-puerperal uræmic convulsions, it has seemed to me to have no other effect than to arrest convulsive movements by rapidly hastening my patient into a state of insensibility. In no case did diaphoresis, or a return

of the urinary secretion immediately follow; and these functions seemed more difficult to establish." He believes it rather increases than retards the uræmic toxæmia. Morphine administered hypodermically, he believes to be the agent sought in the above question—to control muscular spasm, and re-open the avenues of elimination either directly or indirectly. The question which led to this discussion then is, "1. Can morphine in full doses, be hypodermically administered to patients in acute uræmia without danger? 2. What are the effects which follow such administration?"

The author quotes from a number of standard authorities, nearly all of whom, either warn against the use of opium, or caution in its administration, either in acute or chronic uræmia.

Here follow the details of *nine well-marked* cases of uræmic poisoning, with treatment and results.

Cases I, II and VIII were his own, and VI and VII were cases of consultation. In all these cases morphine was given hypodermically in large doses; ten, fifteen, and as high as thirty drops, in one case, of Magendie's solution; at the same time gave half-ounce doses of infusion of digitalis, and half a drachm of acetate of potass., every two or three hours until the urinary secretion was re-established. All the cases recovered from the attack reported. Besides these nine, a number of other cases were reported without detail, some of them in the pregnant state. This plan of treatment was commenced in 1868, the first case, by the advice of Dr. Metcalf. The author closes with the following:

"In the histories of the ten cases given, I think we find answers to the two questions asked at the commencement of this discussion:

"*First.*—That morphine can be administered hypodermically to some, if not to all patients with acute uræmia, without endangering life.

"*Second.*—That the almost uniform effect of morphine so administered is—1st, to arrest muscular spasms by counteracting the effect of the uræmic poison on the nerve-centres; 2d, to establish profuse diaphoresis; 3d, to facilitate the action of cathartics and diuretics, especially the diuretic action of digitalis.

* * *

"My own experience would teach me to give small doses at

first—not to exceed ten minims. If convulsions threaten, and a small dose does not arrest the muscular spasms, it may be increased to twenty minims, and the hypodermics may be repeated as often as every two hours. It must be given in sufficient quantities to control convulsions; neither the contraction of the pupils nor the number of the respirations is a reliable guide in its administration."—*Medical Record.*

Bloodless Operations.

The method which Esmarch has recently revived, and which has been put into use at St. Thomas's Hospital, by Mr. McCormac, for the purpose of saving the loss of blood in operations on the extremeties, consists in bandaging the limb from the toes, or the fingers, up to the place of operation, with an elastic bandage about two and a half inches in width, and from five to ten yards long, firmly applied; and then a strong elastic band, (india rubber) half an inch diameter, is drawn around the limb and fastened with hooks. The bandage below may then be removed, the blood having been all driven out of the extremity below, and the strong band prevents the return of blood. Operations—amputation, resection, or excision, may then be performed with very little loss of blood, though the operation may be such as to require considerable time. The same plan has been tried in several of the London hospitals. No unfavorable results have thus far been recorded.—*London Lancet.*

Night Sweats.

In connection with phthisis, empyæma, etc., have been more successfully treated (at Bellevue Hospital) with $\frac{1}{100}$ grain doses of sulphate of atrophia at bed time, than by any other sized dose administered.—*Med. Record.*

Laxatives.

A new remedy has been introduced as a laxative, which is said to be preferable to many of the salines, on account of its agreeable taste. It is the sulphovinate of soda in two-drachm doses.

Another very efficient and much-used laxative compound is the following:

℞	Ext. colocynth, co.	gr. vi.
	Ol. caryophyl,	gtt. ij.

M. Divide in pilulæ No. ij.

Iodoform in Diseases of the Throat and Nares.

Dr. R. P. Lincoln, of New York, gives in the *Medical Record*, September 15, in detail, a number of cases of chronic nasal catarrh, and ulceration of the naso-pharyngeal space in which he used *powdered iodoform* with the most satisfactory results, in some of which the disease had resisted most of the usual applications. This remedy was also used in the form of an ointment, a *drachm to the ounce of lard.*

Clark's Powders for Intermittent Fever.

℞	Quinæ Sulphate,	grs. x.
	Pulv. Capsici,	grs. iij.
	Pulv. Opii,	grs. i. M.

The patient receives one powder twelve hours previous to the time of the chill, and another about an hour previous. The powders are continued in this manner for three or four days, and then continued every morning as long as may be desired. The most usual time for the chills to return is at the end of two weeks, when it is necessary to re-inforce the system by the full-sized powders for three or four days, (if they have been diminished,) and to be given twice a day.

The certain arrest of the disease is expected under this treatment. Iron should be administered after the chills are stopped. —*Medical Record.*

[We have used this combination for years, (not in the same proportions) with the most satisfactory results.]

Treatment of Pneumonia. By Prof. Germain Sée of Paris.

In a clinical lecture, " he divided the methods of treatment into four: 1, Bouillaud's 'jugulating' system (large bleedings); 2, the expectant method; 3, cardiac medicines: tartar emetic in large doses, digitalis, veratrine (these should not be confounded with the antiphlogistic, which would include bleeding, nor with antipyretics, all of which do not act on the heart); 4, the English method of employing alcohol as a refrigerant and antipyretic, which was introduced into France by Prof. Béhier. Lastly, he alluded to the method of treating symptoms: opium against cerebro-spinal manifestations; large blisters which brought on cystitis; small blisters to relieve pain." Insisting on the method of expectancy, he made remarks res-

pecting its value, the significance of statistics, critical days, and the appearance of *labial herpes.* "Dr. Grandmotet, a disciple of Teissier and a homœopath, had published a thesis crowded with cases cured by homœopathy. Valleix refuted the thesis and showed that without any treatment at all cases of pneumonia recovered as well as with homœopathy; therefore, pneumonia was cured without any treatment. There were, however, pneumonia and pleuro-pneumonia."

The important question of age is to be considered. "Barthez and Legender had established that all children from two to four invariably recovered without treatment, and Prof. Sée, during his stay at the Hôpital des Enfants, had not seen one case of pneumonia end in death under the expectant treatment. In such cases bleeding and tartar emetic were dreadfully mischievous.

"As to statistics, the following had been given in respect of the rate of mortality:—Bleeding, 20 per cent.; tartar emetic, 12 per cent.; digitaline and veratrine, about 9 per cent. (Bennet); alcohol 5 per cent. (Hughs); expectancy, 13 per cent. (German Statistics.) But the truth was that figures, when drawn up without reference to the age of patients, were terribly misleading. In children, the mortality was 0; in adults, after fifty years, 50 per cent. "Again the age of the *disease* should be taken into account." Bouillaud pretended that by bleeding he 'jugulated' pneumonia; and Cochère of Berne, that he did the same with veratria. They were both as to the first day, but not so as to the third. * * * Figures had shown that out of 226 cases, 83 recoveries took place on the fifth day (these had really been jugulated), 51 on the seventh, and 132 on the ninth."

The law of this crisis was neither philosophical, nor founded on the exit of an ill-humor, but a physiological one—the law of regeneration of tissue. During the course of pneumonia, the patient's heat was 40° C. (104 F.), and consequently the blood clotted easily, fibrin formed in excess, and the urine presented an excessive quantity, the temperature of the patient being at the greatest height. Only a little uric acid could be found in the urine, whilst the chlorides were altogether absent (a good test for distinguishing pneumonia from typhoid fever). On the critical day all these symptoms disappeared, the chlorides came back, and the urine was full of urates and uric acid.

Herpes labialis was not a critical phenomenon, since it appeared as early as the third day but was really a favorable sign. "Out of 145 cases of pneumonia in which herpes has appeared, there were 123 cures, which took place definitively on the fifth or seventh day. Generally pneumonic patients with herpes died only in the proportion of 9 per cent.; and those without in the proportion of 29 per cent. In the aged, herpes seldom appeared; 75 with herpes recovered and only 25 per cent. without herpes." In youth, herpes was almost a certain sign of speedy recovery.—*London Lancet.*

On the Skim milk Treatment of Diabetes Mellitus.

In giving the results of the skim-milk treatment in *diabetes mellitus*, as recommended and reported by Dr. Donkin, in a recent number of the *Lancet*, Dr. A. W. Barclay, Physician to St. George's Hospital, says, that in the first trials he did not to the letter follow the rules laid down by the originator, and he had found in his experience no benefit whatever resulting from the treatment, and he further says: "those with whom I have conversed on the subject were unanimous in the belief that it did more harm than good." He then tried again adhering strictly to the directions given. The result was no better. "Did this case stand alone it would be unfair to condemn the skim-milk treatment upon these results, however unfavorable they may seem. * * * * * *

"But after numerous experiments, I confess myself utterly unable to explain how Dr. Donkin has arrived at the results he has laid before the profession, except on the assumption that his favorable cases belong to the well-known class of transient glycosuria, and were not genuine diabetes. In fact, in his last paper he admits the existence of intractable cases, or in other words, the existence of diabetes over which the skim-milk has no influence; and, in the absence of proof to the contrary, it may be assumed that the recoveries were not necessarily due to the treatment at all. * * * * *

"The quantity of fluid passed through the kidneys when six or eight pints of skim-milk are taken a day, the diminution of saccharine material introduced and the absence of starchy food, all tend to lower the specific gravity of the urine; but the increase in its amount more than counter-balances any apparent

good resulting from this circumstance, and produces on the whole, a greater waste of tissue than when ordinary diet is employed. On the other hand, when the diet is so regulated as to reduce the starchy and saccharine food to a minimum, and to allow as little fluid as possible to be absorbed, a great reduction in the waste of tissue results. Again, there seems to be no doubt that the administration of opium will, for a time at least, cause a still further dimunition of waste; and, when the minimum has been reached, the opium may be gradually left off without any necessary increase. * * * *

"The place which I shall assign to it (opium) in the treatment of diabetes is that of subserving a temporary exigency and reducing the waste to a minimum.

"As we have not yet arrived at the true pathology of diabetes, any contribution to its empirical treatment must have some value, even when the conclusions arrived at are not altogether unassailable."—*London Lancet.*

Chloride of Ammonium.

In an article in the Atlanta *Med. and Surg. Journal*, Dr. K. P. Moore speaks highly of the use of "hydro-chlorate of ammonia" [chloride of ammonium] in pertussis, though the prescription used was quite compound:

℞ Ammonia mur., ℥ss.
Paregoric, ℥ij.
Syr. Squills, ℥iij.
Aqua, ℥iv.

M. S.—Teaspoonful *pro re nata*, regulated according to age, etc., of patient.

I may remark here that it may be given *ad libitum*.

In the same article, *Amenorrhœa, Sterility, etc.*: "I come now to notice a class of diseases in the treatment of which I claim the use of this drug to be purely original with me, viz: amenorrhœa and kindred troubles. I claim, also, an idea which though it may not yet be fully established, and the *modus operandi* of its action not fully understood, yet it is one well worthy of further investigation, viz: that this drug possess some peculiarly specific action in stimulating healthy ovulation, and its concomitant menstruation." He began using it for this purpose in 1868, while treating a case of ovarian cyst. "The effect

of bringing on and regulating her menses was so magical, she was induced without my knowledge or consent, to give it to her daughter, aged fourteen, who had never become regular in her catamenial function. Subsequently she gave it to her cook who was also irregular, and in both cases it acted so kindly, that she called my attention to it. It was something new to me, but thinking it worth a trial; I afterwards prescribed it in quite a number of cases with very gratifying results." Several cases of sterility of several years, are detailed in which the use of the remedy was soon followed by pregnancy. Gave twenty grs. three times a day, for twelve days preceding the expected period. He believes the manner in which it aided in causing conception, was simply by stimulating "to healthy ovulation and menstruation."

He used the same remedy successfully, [combined with tr. digitalis] in a case of "valvular heart disease," "perhaps fibroid growth about the semilunar valve, or the sinuses of Valsalva, or like fibrinous deposits upon the columniæ carneæ."

Treatment of Puerperal Convulsions. Plan adopted by Prof. T. Gailard Thomas of New York.

When toxæmia is recognized in a pregnant woman from the presence of albumen in the urine: First, keep the bowels freely open by the use of saline cathartics—bitartrate of potassa, and rochelle salts; second, restrict the animal diet, requiring mainly vegetable and farinaceous food; third, guard the skin against atmospheric changes, and administer daily a hot water or hot air bath, followed by friction with a rough towel, used by an assistant until the skin is in a perfect glow. "In the worst forms of uræmia premature delivery will be required and it should be accomplished at the end of the eighth month unless the life of the mother is seriously jeopardized previous to this time. The child will almost surely die if left to the end of the ninth month, and the life of the mother is greatly risked by the same postponement."

If the patient has a convulsion at the end of the ninth month or before, get the kidneys to work, and deliver the woman as soon as possible with safety to mother and child. Draw blood if the condition of the patient warrant it. This is done for purely mechanical reasons—to prevent rupture of cerebral ves-

sels. Should another convulsion occur, administer chloroform. "Venesection and chloroform are the two means for stopping this kind of convulsions." Bring on labor. If the os is closed use the warm douche, throwing the stream against the os for twenty or thirty minutes at a time to favor dilatation. Give some hours for dilatation, preventing convulsions by chloroform, and when the os is dilated sufficiently—an inch and a half or two inches, there is generally no hurry about delivering, for the patient is under chloroform, deliver by turning, or by the forceps as the circumstances seem to indicate, or leave it to nature.

Keep the patient quiet; keep the bowels open, but not to prostrate; sustain the patient by proper nutritious diet; give stimulants if the powers begin to fail.

Prof. White, of Buffalo, spoke on the subject as follows:

"I am in favor of the use of opium, but I have never felt that it was important to give it hypodermically." In one case in which œdema was present, and immense distention of the abdomen, and in which anæsthetics nearly controlled the convulsions, but not entirely without going too far, "opium was given in large doses by enema, with the most pleasing results." He believes that it relieves cerebral congestion, and thus has a tendency to prevent the return of the convulsions. "Again, I think it important to unload." He thinks other remedies better than calomel: prefers, of all others, croton oil; "prepared with a little sugar, and placed upon the root of the tongue, it is almost certain to operate quickly, fully and freely."

Another benefit from it as a cathartic is, that it irritates the entire intestinal canal, and thus produces a revulsive action. He formerly thought the disease required blood-letting, and he still thought there were cases of convulsions in which venesection was important; the indications demanding it are plain. "The larger proportion of women, however, will not require it."

Dr. Boxter remarked he was heartily sick of the use of chloroform, and that he relied on *infusion* of *digitalis* in half ounce doses every two or three hours.—*Med. Record.*

Occlusion of the Eustachian Tube.

Dr. Rudinger, in *Monatsclrift der Ohrenheitkunde,* No. 3, 1873, after a series of experiments carried on upon himself, has ar-

rived at the conclusion that the Eustachian tube is habitually closed. When it is accidentally opened through a contraction or cramp of the dilating muscle of the tube, the voice has a peculiar sound for the person who is speaking, and resumes its natural sound only when the tube is again closed.—*London Lancet.*

Action of the Cervix Uteri during Cohabitation.

In considering this subject before the Berlin Medical Society, Dr. Wernich maintained, that although in late works upon the *cervix uteri* it is held that this portion of the uterus is almost without nerves, and, in the various activities of the organ, remains an inactive appendage, yet, on the other side, a series of investigations which have widened the older views makes it much more probable, that just this portion of the uterus plays a very important rôle in certain phases of sexual life. Vallisneri and Haller directly observed the process of erection in the uterus of animals. Günther states that in the mare the uterus exercises an aspiratory activity during and after the ejaculations. Bischoff, after his experiments on dogs and rabbits, felt justified in assuming that the human uterus, at the moment of the highest excitation, presses down into the small basin, and that the mouth opens and draws the semen in by suction. Still, there was generally little inclination to accept the analogy from the lower animals, even after Rouget published his investigations concerning the dilatable vessels of the human uterus, and Litzmann (and soon after Hohl) observed the erection of the uterus direct through touching, and Eichstedt, from these data and his own experience, framed a full erection and aspiration theory. According to this theory, the uterus, which is flattened anteroposteriorly in its usual state, assumes a roundish or pear shape during, and especially after, the sexual excitation in coition; so that an actual *cavum uteri* arises, and through this temporary widening the semen is drawn in.

A year before [the date of his remarks], in a full and detailed publication of two observations of uterus-erection, Dr. Wernich took occasion to oppose this view; and especially supported by the results of Henle's anatomical investigations, he sought to establish the probability of a somewhat different process. He believed that as with man an erection of the penis, so in woman a similar erection of the *portio vaginalis* (and of this

only takes place, and that, at the time of the orgasm and almost simultaneously with the mutual ejaculation, the *cervix* becomes lax and soft, the *os* opens, and, through this somewhat sudden cessation of the previous state, rendered possible by the peculiar arrangement of the vessels, the aspiration occurs. Furthermore, he had received friendly letters from Mr. Matthews Duncan of Edinburgh, and from Prof. Bischoff of Munich, communicating statements in the literature of the subject overlooked by him, and remarks wholly in agreement with his views. Under these circumstances, he felt he might be pardoned for coming before the Society with a further confirmation of his views of normal conception; namely, the direct observation of these changes in the *portio vaginalis*, by Dr. Beck, reported in THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL, Sept. 1872, under the title, "*How do the Spermatozoa enter the Uterus?*"

D. Wernich was ready to retain doubts, as far as need be, in single observations; but, aside from the fact that the author made the observation the second time, there was much in the report to contribute to its credibility. Dr. Beck was entirely unprejudiced with regard to what he saw. His naïveté went so far that he knew nothing of the European literature *pro et contra*, and held his observations not only as the first *per adspectum*, but as something absolutely new. However valuable this complete absence of all preconceived opinion may be, it had on the other hand the disadvantage, that the reporter had given no strict thought as to how the fact he saw came about. To Dr. Wernich, this initial hardness of the *portio*, the congested state, the rythmus of the aspiratory movements, are certainly evidence in favor of the view, that the confirmed phenomenon rests on a process of the vessels. There are peculiarly constructed vessels capable of contraction and dilatation found only in the *cervix*. Wholly at variance with Rouget and Ducelliez, who describe the whole uterus as capable of erection, and thereupon proceed from a somewhat hypothetical representation of the *arteriæ helicinæ* and their functions, and who do not in their whole works describe a single vascular apparatus which, *stricto sensu*, merits the title erectile, Henle establishes, beyond doubt, the right of the vessels of the cervical and vaginal portion to this designation. Dr. Wernich had spoken in full concerning this matter in his publication alluded to, and to save repetition he

referred the Society to it and to Henle's Handbook of Anatomy. —*Berliner Klinische Wochenschrift, 1873, No. 9.* D.

ARMY STAFF RANK.

The following resolutions were passed by the New York Academy of Medicine:

Resolved, That the New York Academy of Medicine do hereby cordially unite with the American Medical Association in their memorial to Congress in support of a bill to increase the efficency of the Medical Department of the Army of the United States, now before that honorable body. They consider it an act of justice that the members of so important a branch of the service, gentlemen of the highest professional attainments and excellence of character, and charged with such weighty and responsible duties, should hold the same relative rank and enjoy the same emoluments as members of the other staff corps of the army.

That it be respectfully urged upon the members of Congress to use their influence in support of the bill in question.—*Medical Record.*

[We desire respectfully to ask the attention of our Representatives in Congress from Missouri, to the unwise discrimination against *medical officers of the United States Army* as *compared with the medical staffs* of the navy, by *existing laws* whether from inadvertance or design, it should be speedily corrected. The defenses of the country on a *peace* basis should be models of justice and equity, as well as foundation for organization; where the requirements are identical as to acquirements and culture, and the nature of the service the same, why make difference in rank and compensation? With regard to exposure or exhaustion of vital energy, a *frontier* life on land is not to be preferred to comfortable quarters on ship board. Will our Representatives please look into this matter.]

THE SAINT LOUIS

Medical and Surgical Journal.

MARCH, 1874.

Original Communications.

EPIDEMIC MENINGITIS.

As it occurred in Springfield, Mo., in the spring of 1873. Reported by Dr. J. E. TEFFT, Chairman of Committee, appointed by the Springfield Medical Society.

The type of the disease was asthenic and nervous. The number of cases reported more or less fully forty-nine; while it is believed eight or ten other cases occurred in town. The unusual dryness of the years 1871 and 1872, and the long and severe winter of 1872 and 1873, are facts worthy of mention—the latter as immediately preceding this epidemic being a general cause of depression of the vital powers, particularly as previous to the breaking out of the epidemic patients suffering from other maladies exhibited unusual depression and asthenia.

Again the *epidemic influenza*, which accompanied and followed the *epizootic*, immediately preceded the disease under consideration. Pneumonia and other diseases

were marked more or less by the typhoid type; especially where the nervous pneumonia developed. * *

The first case which occurred was that of a young girl eleven years of age, of previous good health, who was attacked on the 9th day of April with rigors, and vomiting of bilious matter. Calomel in small doses was exhibited but with no benefit. She had at night slight delirium; pulse ranged from 120 to 130; complained of headache and pain in limbs; vertigo; cutaneous hyperæsthesia; slight stiffness of the cervical muscles; no eruptions, skin dry; eyes injected and vision diplopia. In this condition she continued until the night of the fourth day, when she sprung up in bed, and called for water. She insisted on going for it herself, and walked a few steps and back with some assistance, and on getting to the bed, fell on the bed, struggled a little and died.

It was the opinion of the attending physician that the immediate cause of death was thrombosis. Very little treatment was instituted except the calomel as above stated, and morphia, and some outward applications.

The following is a fair sample of the more protracted cases:

A female child, age two and one half years, was attacked April 7th, with rigors, a pain in the right arm followed by a smart febrile reaction. Coincident with the establishment of the fever she commenced vomiting green and yellow bilious matter. A physician was called the next afternoon, and found high fever; skin hot and dry; tongue slightly coated with yellowish brown fur; pulse 140 to the minute; intense thirst and frequent vomiting. Everything introduced into the stomach was

rejected. She was ordered hot pediluvia, sinapisms to the epigastrium, cool sponging of the face and fore arms, and one grain of calomel administered every two hours. On April 9th, her condition was worse; vomiting more frequent, and of an explosive character; tenderness along the spine; stiffness of the cervical muscles. The following prescription was ordered:

℞	Sp. Nit. Dulc.,	ʒiv
	Aq. Menth.,	ʒxij
	Tinc. Verat. Virid.,	m. xxx
	Morph. Sulph.,	gr. ss

Sig. One teaspoonful every two hours.

Quinine was ordered, one grain every two hours on the subsidence of the fever. Under this treatment the vomiting gradually subsided, the symptoms became more mild, and gradually assumed the phenomena of continued fever. The following symptoms presented themselves during the progress of the case: Headache, delirium, cutaneous and muscular hyperæsthesia; pain in the neck, back and limbs, slight opisthotonos, conjunctivitis, partial deafness,—dilated pupils, bilious vomiting; first constipation, afterwards diarrhœa; herpetic eruption on one leg and one arm. The highest temperature observed was 103°. The remedies used were those above indicated,—sp. nit. dulc., with veratrum viride and gelseminum to control the circulation; bromide of potassium and morphine to control the nervous irritation and establish tolerance; quinine and brandy. Nearly complete suppression of urine occurred during the third week, and seemed to be relieved by the oil of turpentine internally and applied over the loins. About the twenty-first day she was attacked with clonic spasms which continued for two days when they subsided. On

the twenty-fifth day she was again attacked with convulsions which continued for several hours and terminated in death. The local treatment consisted in turpentine stupes to the spine, and afterwards vesication with blistering tissue. The nutrition was provided for by the use of beef tea, cream, eggs, etc. Vomiting was a prominent symptom through the entire course of the disease, though it never seemed to be excited by the ingestion of either food or medicine.

The following was one of the very worst cases, but which finally recovered:

A young girl fourteen years of age, previously healthy, was suddenly attacked with the usual pains in the head, neck and spine, and vomiting. Large doses of bromide of potassium were exhibited (one drachm every three hours) with some relief, but the next day she was worse. The following symptoms presented themselves during the progress of the case: Active, furious delirium; decided opisthotonos, the whole spine bent like a bow; suppression of urine; dilatation of pupils; insomnia, and at other times coma; double vision; and late in the case much emaciation.

She was discharged on the thirty-fifth day, and had no sequelæ.

There was much uniformity about the manner of invasion. Generally indeed in seven-eighths of all the cases, the first symptoms were pain in the back of the head and spine, rigors and bilious vomiting. In a few cases there was swelling of the joints, simulating rheumatism.

The following table shows in a convenient form the number, age, sex, and results of the various cases:

Ages.	Cases.		Rec'd.		Died.		Rec'd.	Died.	Total.
	M	F.	M.	F.	M.	F.			
Under 5	2	5	1	4	1	1	5	2	7
5 to 10	5	3	3	2	2	1	5	3	8
10 to 20	9	6	5	3	4	3	8	7	15
20 to 30	2	8	2	5		3	7	3	10
30 to 40	2	1	2	1			3		3
40 to 50	1	1			1	1		2	2
50 to 60		1				1		1	1
60 to 70	2	1			2	1		3	3
Totals	23	26	13	15	10	11	28	21	49

The average age of the males was 26. Average age of females was 18.9.

In addition to the above, there has probably been twice as many other patients prescribed for, presenting some of the symptoms of the disease in a mild form, or who have had other complaints, to which were superadded some of the symptoms of the epidemic, or whose complaints assumed a nervous type, by the operation of the same influences which determined the type of the epidemic.

The specific cause of the epidemic is no doubt sufficient, and only sufficient in some cases to produce very slight and transient effects, and it is also true that very respectable authority may be found for calling such cases epidemic meningitis.

We see no greater reason for that, however, than exists for calling every case of painless diarrhœa in cholera time, a genuine case of cholera.

As we shall express our views on that subject more fully hereafter, we will make some especial mention of a few of the leading features in the phenomena presented in the majority of the cases. Some of the symptoms deserve special attention, and we regret that the reports

are not more explicit on some points in the clinical history of the cases.

Pulse.—In some of the cases the frequency of the pulse was but little altered through the whole course of the disease; in others it was notably affected. In one case the pulse was 160 to the minute for several days in a boy 13 years of age, with a hot, dry skin. In another, well-marked and interesting case it ranged from 34 to 40 for more than a week, and yet finally the patient recovered.

For the most part the pulse was frequent, quick, and wiry in the early stage, and in the cases which recovered, gradually fell to the normal standard without going much below it. A very slow pulse was regarded by all as a very unfavorable symptom, though the results would seem to indicate that great irregularity is a much graver symptom than simple infrequency.

Opisthotonos existed in a marked degree in *about* half of the cases, and slightly in all of the remainder. It was not found to be so valuable an aid to prognosis as to diagnosis. Indeed there seemed to be no very definite relation between the severity of this symptom and the gravity and danger of the case.

Suppression of urine was reported as being present in a marked degree in about half of the cases, and seemed to be a correct measure of the general condition. The existence of this sign is believed to depend upon congestion of the kidneys produced by the increased effort at elimination. Dr. J. Lewis Smith reports that in the epidemic occurring in New York in 1872 increased diuresis was a usual symptom. Certainly no single condition was more uniformly present here than partial

suppression, and none that more urgently demanded treatment.

Headache and pains in the neck and back were reported in nearly every case and caused more distress than any other symptoms. They usually occurred at the very commencement and continued with varying intensity through the disease.

Coma occurred in quite a large number of the cases. In some it was an early symptom and soon passed away. When it occurred after the first week, it was usually the immediate precursor of death.

Cutaneous, or muscular hyperæsthesia, was reported in a majority of the cases, and we are of the opinion that it was actually present in nearly every case.

General convulsions were not alluded to in any of the reports.

The eyes were variously affected. Nearly every case presented a slight conjunctivitis. There was in some of the cases diplopia, and in one total blindness. An irregular dilatation or contraction of the pupil was present in most of the cases.

The hearing was not affected materially except in one case, in which case deafness still exists.

The tongue presented no symptom peculiar to the disease, in some being moderately coated and in others notably clean.

Vomiting was a prominent and early symptom in nearly every case, in some being of an explosive character, not apparently attended with nausea and not excited by anything eaten or drank. The vomited matters were usually a greenish fluid with nothing to distinguish it from that ejected in ordinary bilious vomiting. In several cases the initial symptoms so nearly

resembled a severe attack of bilious vomiting, as to lead to temporary errors in diagnosis.

The bowels were generally natural. Diarrhœa was present in a few cases, as was also constipation, but both seemed to be accidental.

Thirst was not a marked symptom.

The appetite was usually absent, but in quite a number was good throughout the whole case.

About half of the cases were affected with a mild pharyngitis in the early stages, and in one there was an abscess of the parotid gland.

The temperature was reported in only two cases, and in those in so imperfect a manner as to be of no use.

The cutaneous eruptions are in our opinion not fully reported. In some there was a petechial eruption, in some a scarlet efflorescence, and in others herpes. It was, we think, present in something like half the cases.

The average duration of the fatal cases was eight days, the shortest being six hours and the longest thirty-two days, and in the cases which recovered, twenty-six days, counting from the period of invasion to the time when convalescence was said to be fairly established.

The character of the disease, however, after the first two weeks was well stated by North, who said that it ran into a "mild typhus of uncertain duration."

The sequelæ have not been numerous. In several cases slight hemiplegia continued for a few weeks. In one case deafness continues to the present time. It happened in many cases, that for some weeks after convalescence, or even complete recovery had taken place, the patients were liable to attacks of nervous excitement or nervous prostration, depression of spirits, headaches, irregular pains and a variety of nervous phenom-

ena, and were not free from this liability for several months.

Nature.—Your committee are of the opinion that the cases observed in this epidemic justifies us in concluding that epidemic meningitis, is a general disease, and not a local inflammation; that it is an essential specific blood disease, characterized by fever of generally a low type, with a tendency to irritation and inflammation of the meninges of the cerebro-spinal axis, though other local lesions are frequently present.

In general it may be said that no local disease is ever epidemic. The essential idea of an epidemic disease is that it is one which prevails generally over a large extent of country at the same time, arising apparently without intercommunication and not communicable from sick to well. It is frequently assumed for the purposes of discussion, that such cause is someting in the atmosphere and that it enters the system through the respiratory organs. At all events such general causes produce general diseases, and whatever local lesions exist, whether of structure or function, are secondary results of the general systemic contamination. This view is supported by a variety of facts appearing in the late epidemic. It has been repeatedly shown in other epidemics by autopsies, that cases having all the general characteristics of epidemic meningitis have progressed to a fatal termination, without any inflammatory lesion sufficient to cause death, and only such as were manifestly secondary.

Other cases present the usual symptoms of the pronounced cases, especially the cerebro-spinal symptoms and yield so readily to treatment and recover so speed-

ily as to render the conclusion inevitable that no meningeal inflammation existed.

Again the lesions of innervation, of secretion, and of nutrition, the prostration, and the early and grave blood changes, shown by the various cutaneous affections attending the disease, are surely the result of something more than a local affection.

It is a misfortune that autopsies were not made in the fatal cases. In one case which terminated fatally in six teen hours, the patient dying comatose, a partial autopsy was made showing injection of the cerebral meningeal vessels, effusion into the ventricles and a deposit of lymph upon the arachnoid at the base. From the clinical history of the cases which have occurred here, we are justified in defining the nature of the disease as we have.

It is but fair to state that the foregoing views, while generally concurred in by those who have observed and reported cases here, are not universally concurred in.

One physician, who had some seven or eight cases, regards the affection as essentially a local inflammation, and that the epidemic influence determines the locality, and believes that the best treatment to be pursued is the ordinary antiphlogistic method—bleeding, mercury, etc. His reports show however, that notwithstanding his pathological notions, he soon abandoned the antiphlogistic treatment and used arterial sedatives and tonics.

Another holds, or did hold, the same opinion as to its pathology, but seems in his cases to have practiced on precisely the opposite theory.

It would seem that pathological views ought to de-

termine our notions of general therapeutics, yet, this is but another instance where such is not the case.

So far as we can learn then, no cases have occurred which could be attributed to any special cause. In some of the cases the hygienic surroundings were bad, in others the best attainable. We have been unable to trace any cases to civic miasm, to foul odors, or deficient ventilation. Such influences existed doubtless to some extent in some of the cases, yet hardly in a majority. We deem it unnecessary to discuss speculative theories, our object being to collect whatever light is to be gained from this epidemic, which, in our opinion, presents nothing to contradict the general doctrines concerning the causes of epidemics heretofore stated. When an epidemic of any kind exists it is doubtless true that it will prevail more extensively among those persons subjected to bad hygienic influences, and the more so in proportion as the disease partakes more of the nature of blood-poisoning. In other words, the general disease is more affected by unwholesome conditions than by inflammatory lesions. In those epidemics where the disease so much resemble typhus that it is mistaken for it, it is doubtless found to prevail most where the civic miasm most abounds, and in turn more resembles typhus on account of the civic miasm. On the other hand, where the disease is of such a character as Niemeyer observed when he declared that "it presented no symptoms except such as are referable to the local affection," then we conclude that such influences are less noticable. We have been able in this epidemic to observe no facts bearing on that interesting point.

There has been generally but little difficulty in mak-

ing a diagnosis. Indeed a pronounced case of epidemic meningitis is hardly mistakeable. The only difficulty is in the onset, and the paramount importance of very early treatment being borne in mind, some practitioners have met with some embarrassment. There are several diseases with which it may be confounded in the early stages.

Cases commencing with high fever, very frequent pulse, pungent heat of skin, a general efflorescence of the skin, vomiting and convulsions, have a close resemblance to scarlet fever; and all the more if there is present pharyngitis, as is sometimes the case. In such case the diagnosis could only be made—if at all—by the presence of one or the other of the two diseases in the community. Such an uncertainty, however, works no fatal injury, as the indications for treatment would be the same in either case, and the progress of the case would soon solve all doubts.

There are other diseases which according to writers, are frequently mistaken for the disease under consideration, for example—sporadic meningitis, tubercular meningitis, typhous fever and perhaps others. No such difficulties having been had here it is not thought worth while to discuss the diagnostic differences.

Perhaps the greatest blunders in diagnosis which have been made in this epidemic have been in cases of persons (mostly females) of delicate organization and excessive mobility of the nervous system, laboring under the influence of fear, and perhaps of hysteria. Such a patient, having become acquainted with the initial symptoms of the epidemic, will present them so as to be hardly distinguishable from the genuine affection, and if a medical man in whom the patient has confidence,

gives confident assurances of speedy relief, and thereupon exhibits nervine remedies, both the patient and physician may be deceived.

In accordance with the views before expressed, it is believed that in epidemics of this kind the whole people is subjected to the operation of the epidemic influence, and are to some extent affected by it. Not only does it impress its type and some of its characteristic symptoms upon any disease which occurs, but some persons not otherwise diseased, either with or without the operation of the ordinary exciting causes of the diseased action, present the ordinary phenomena incident to the initial stage of mild cases. A large number of such cases have happened in this community, and have either recovered without medical advice, or the symptoms have subsided under the influence of such remedies as the chloral hydrate, bromide of potassium, or opium, remedies calculated to allay nervous irritation, and moderate vascular excitement caused by some agency which operates through the medium of the nervous system. It is probable that the pathological character of the transient cases is a disturbance of the system by some ordinary cause of disease, the patient at the same time being under the impression of the epidemic influence. The combined effect is not sufficient to produce any considerable amount of blood change, only sufficient to cause some slight general functional derangement, and irritation of the cerebro-spinal axis instead of inflammation.

A man aged about fifty, previously of good health, of spare habit and nervous temperament, was attacked on the 4th of May, with decided rigors. Twelve hours afterward he was seen by a physician who found him

with shrunken features, cold extremities, a frequent feeble pulse, dilated pupils, severe pains in the back of the head, neck and spine, with stiffness of the cervical muscles, nausea and occasional vomiting. Morphine and quinine were exhibited in full doses, and in twelve hours the symptoms were entirely relieved, and did not return.

In this case we believe that there existed irritation of the cerebro-spinal axis from the epidemic cause, and probably superadded thereto some slight vascular congestion, both of which were relieved by the treatment instituted.

In other cases the impression was more protracted as in the following case:—A lady about thirty-six years of age, of full habit, but of impressible nervous organization, was attacked on the 9th of May with rigors, nausea, and pains in the head, neck and spine, stiffness of the neck, and sleeplessness. Quinine and morphine were exhibited without benefit. Afterwards the chloral hydrate, and bromide of potassium, were exhibited in moderate doses, which afforded relief, but the symptoms recurred as soon as the effects of the remedies had passed away. It was found necessary to use remedies of that character at intervals for more than three weeks before she regained her usual health. In this case we believe only functional irritation existed.

This class of cases, while properly the subject of anxiety, and while they demand prompt treatment, should not be misunderstood.

These are not cured cases; they are not aborted cases; indeed they are not cases of meningitis at all, and should not be classed as such. Statistics into which

such cases enter are worthless, and can only be blind guides.

A case of epidemic meningitis, or cerebro-spinal fever, where the blood lesion is so considerable as to merit the name, or where inflammation is actually present, can never get well speedily. The well established principles of pathology and therapeutics clearly teach this, and all clinical experience and observation demonstrates the truth of the teaching.

Physicians who have many such cases, however, can comfort themselves with the reflection that in a certain proportion of them, they have warded off an attack of the disease, which is certainly to the patient a more valuable service than to cure it after it is already established.

The preventive treatment is well worthy our attention:

First—To maintain by all proper means a firm state of health, particularly as to the nutrient functions, that being the best method of warding off disease as well as the best possible preparation for withstanding its force after the attack.

Should the slightest threatening symptoms present themselves, they should be met by remedies to quiet the nervous system, and by the free use of general tonics.

Should we be called, during the coming year, to again treat this most formidable disease, as has been predicted, it is to be hoped that the experience of the immediate past, may prove useful to us, for if we have not learned how to cure the disease, we have at least found out the futility of many procedures, and the uselessness of many remedies, which can only distress

and annoy the patient, exhaust his strength, impair his nutrition, and still further depress the vital powers. We have acquired also greater skill in diagnosis, which will enable us to institute treatment to prevent the establishment of serious disease.

A careful review of the cases of meningitis which have occurred here, shows as conclusively as they show anything, the fallibility of the resources of therapeutics. We can safely say that the only treatment we have found of any avail, is the expectant treatment. To moderate vascular tension, relieve pain, allay restlessness, procure sleep, and support the strength with tonics, stimulants, and nutrients, and generally to "obviate the tendency to death," are all that we can attempt with any prospect of success; no measures to subdue the inflammation seem to promise anything.

In conclusion the committee earnestly recommend, in the event of a new invasion of the disease, that careful daily observations be made, and records kept by each physician for his own personal benefit. By these means alone, it is believed, can a man fully reap the benefit of his own experience.

The report was received, the thanks of the Society tendered to the committee, and they were requested to have the same published as expressing generally the views of the Society.

Correspondence.

COLORADO FOR INVALIDS.

We insert the following extracts from a letter from Dr. George R. Bibb, formerly of Jacksonville, Ills., on account of the professional interest now felt in that country as a resort for invalids having pulmonary diseases. Dr. Bibb is an intelligent witness, himself the subject of pulmonary phthisis:

MANITOU HOUSE, MANITOU, NEAR COLORADO SPRINGS,
ELPASO COUNTY, COLORADO TER., Jan. 30th, 1874.

In order that you may understand what causes the great difference of climate in certain locations not very far distant from each other, it will be necessary for me first to refer to the general topography of the country. Colorado lies between the 37° and 41° of north latitude, and the 24° and 31° longitude west from Washington, being bounded on the west by the Rocky Mountains, which have an altitude of from 10,000 feet to 17,000 feet above sea level; about midway between the northern and southern boundaries a ridge or spur of the mountain extends out on to the plains eastward to the distance of from 75 to 100 miles, with an altitude of nearly 8,000 feet. This ridge is called the "Colorado Divide." Its summit is about 45 miles south of Denver. The country lying north of the "divide" is called Northern Colorado, and that south of it Southern Colorado. The water from the eastern slope of the mountains finds its way by innumerable streams to the South Platte on the north, and the Arkansas River on the south. If you will extend two parallel lines on your

map from north to south, one 30 miles east of the foot of the mountains, and the other 30 miles to the west, extending up into the mountains, you will include between these lines most of the towns and mines of the Territory. The eastern half (30 miles east of the foot of the mountains) includes all of the land which can be irrigated or made available for agricultural purposes, with the exception of some of the land in the "Mountain Parks." Most of the towns that are resorted to by invalids are located near the foot of the mountains, or within an area ten miles east; of these the principal ones visited by invalids are Denver, Manitou, Colorado Springs, Pueblo, Cañon City and Idaho (Springs).

Now we are prepared to answer the question as to what constitutes the difference between the climate of Colorado and that of the Mississippi Valley States. The soil of the States is rich and deep, and retains moisture like a sponge, causing frequent rains in the summer and snow storms in the winter, so that nearly half (if not quite) of the days of the year are cloudy, and the atmosphere is charged with more or less moisture, then there are the extreme changes both in summer and winter, the heat of summer being relaxing and debilitating, causing those who are enfeebled by disease to abstain from a stimulating animal or carbonaceous diet, and in the winter the extreme cold, with sudden changes of temperature, the atmosphere loaded with moisture, bad roads, and a clouded sky, causing the invalid to be confined to close rooms, or if they expose themselves, subjecting them to acute inflammations or frequent congestion, causing more rapid ulceration of the lungs, or if other organs are diseased, interfering with the proper performance of their functions. On the other hand, Col-

orado has a very impervious soil, being composed largely of sand and adobe, while the mountains are simply a mass of rocks (well named Rocky Mountains), which are mostly lime and sandstone, being in a state of decomposition, so that the water from the rains of summer and the winter snows is shed off rapidly into the little streams which thread them in countless numbers, and does not stop when it reaches the plains, but continues on by a rapid descent until it reaches the two great veins, the Platte and Arkansas Rivers, which collect all the waters of the Territory on their way to the sea. So you will readily understand why the soil should be dry at least eight or nine months of the year, where there is no rain. This causes a dry atmosphere, sunny sky and good roads; and promotes the health and happiness of invalids, as they are enabled to be out of doors most of the time, riding, walking, or sitting quietly in sheltered sunny places, exposing their bodies to the penetrating rays of the sun. In this way they acquire good appetites, sleep soundly, and eat largely of animal food, of which we have quite a variety, of wild game, such as buffalo, antelope, bear, Rocky mountain sheep (a very large animal), venison, and Rocky mountain trout, and other varieties of game, not to mention, grouse, quail, beef, mutton, chicken, turkey, oysters, etc., etc.

You will readily see why it is that a large number who come here in the first and second stages of disease of the lungs do well, and most cases of uncomplicated asthma are cured. Most cases of emphysema are relieved, but of course not cured.

I should like to give you the comparative difference in the climate of the different towns to the north and south of the "divide," but as I do not wish to tax you with

reading a communication of too great length, I will simply state the fact that the climate north of the "divide", is subject to more sudden changes, having more snow, and a temperature of from 5° to 15° colder than it is to the south of the "divide."

I came to Manitou three months ago, arriving here the 28th of October. We have had very fine weather most of the time since, some days have been quite cold, the thermometer indicating as low as 2° below zero, but it soon moderates and, as the atmosphere is very dry, we do not mind it much.

The town of Manitou has a very fine location, being in a glen, or valley, called the Fountain Valley, which commences at the "Ute Pass," a mile west of the town and extends eastward, being merely a narrow pass to the west, and gradually widening until it is lost on the plains. The town is five miles west of the "Denver & Rio Grande Railroad"—Colorado Springs being the nearest station. A beautiful little stream flows through the town, called the Fountain River, its water being very clear and cold both summer and winter, as it is supplied by the melting snows on the mountains.

Here are located some of the most celebrated mineral springs in America, and perhaps equal to any in the world. The waters of the soda springs hold in solution a large per cent. of the bicarbonate of soda, lime, and magnesia, and chloride of sodium, chloride of potassium and sulphate of soda. The iron springs, besides these elements are largely impregnated with iron, the water is saturated with carbonic acid gas, so that when it comes up from the rocks it ebulliates or bubbles up several inches above the surface, the carbonic acid gas

gives the water a very pungent and pleasant taste, grateful to the palate and stimulating to the stomach.

"It is necessary to caution invalids who come here for their health not to attempt to make much exertion for the first six or eight weeks, as the temptation is great to take too much exercise either by walking or riding horseback, when they should be contented with short walks and buggy riding. The lung tissue is put upon the stretch by respiring the light air, this causes more rapid ulceration, increasing cavities, causing a free secretion of pus, with an increased cough, so that they are more apt to fail than if they had remained at home."

I will close by giving you a quotation from the *Out West Magazine*, it says: "Manitou itself is in the very midst of mountains, shut in on nearly every side by the lofty heights, a calm, quiet retreat, with babbling waters, whispering pines and fragrant flowers; where, if anywhere on earth, it must be a delight to be an invalid, and gradually drink in health from the invigorating air.

St. Louis, Feb. 18th, 1874.

Editors of the St. Louis Medical and Surgical Journal:

Gentlemen: Noticing an article in the February number of your Journal concerning an ovarian tumor in a girl of eleven years, reported by the late Dr. A. D. Berchelmann, *commented* on and *corrected* by Geo. J. Engelmann. I desire respectfully to comment on the correction of Dr. Engelmann.

First, Dr. Engelmann states that a traumatic origin of the tumor was hinted at, but if I understand the article, the writer speaks of a discharge of a sanguinolent character from the vagina occuring before the fall (the

notice of which, I suppose Dr. Engelmann had reference to as the traumatic origin), hence Dr. Berchelmann could hardly have meant to ascribe the tumor to the effects of the fall.

Second, Dr. Engelmann disagrees with Dr. Berchelmann in the supposition that the discharge came from the tumor through the Fallopian tubes, as he says they are never, "unless themselves in cystic degeneration, sufficiently permeable to permit the passage of such quantities of fluid,"—and he says the result of his own extensive observation is, that the Fallopian tubes will allow the passage of none but the finest probes either in a healthy or a morbid state. Is it not a well known fact that the Fallopian tubes are very distensible? Prof. L. Ch. Boisliniere, in one of his lectures at the St. Louis Medical College, stated that he had passed a *large uterine sound* into the Fallopian tube, (we refer to Dr. Boisliniere by permission.)

Prof. Thomas, of New York, stated in an article in the *Philadelphia Medical and Surgical Reporter*, that he had passed a sound *into the Fallopian* tube.

A case cited by Prof. Boisliniere where an abcess of the ovary burst into the Fallopian tube, and pus appeared in the uterus, shows that it is probable, we think, the discharge in the case reported by Dr. Berchelmann came from the tumor instead of from the irritated uterus, as Dr. Engelmann supposed. He speaks of the difficulty of differential diagnosis between like tumors and pregnancy being exaggerated by Dr. Berchelmann; pardon the suggestion, but when Dr. Engelmann has been as long in practice as Dr. Berchelmann was, perhaps he will not speak so confidently of the simplicity of diagnosis of like tumors from pregnancy.

I hope since Dr. Engelmann has commented on the late Dr. Berchelmann's article, that I may be indulged to make the foregoing suggestions.

C. E. EDWARDS,
St. Louis Medical College.

NEW YORK, Feb. 7th, 1874.

Editors of the St. Louis Medical and Surgical Journal:

There is at the present time an interesting discussion going on in our city in relation to some controverted questions in *physical diagnosis*. Dr. Leaming, of St. Luke's Hospital, is the champion of some new views *radically different from those generally sustained by auscultators.*

These views have been published and extensively distributed to the profession,—many subscribing to them, others dissenting. In the last number of the *Medical Record*, of this city, there is a critical review of Dr. Leaming's new and novel views by Dr. W. C. Glasgow, of your city. The paper is brief, but the points of objection to Leaming's views are *exceedingly well made:*—the review is certainly a very able one. At a late meeting of the New York State Medical Society, Dr. Leaming's paper was extensively distributed to members—and it was a laughable and strange coincidence that the *Medical Record*, containing Dr. Glasgow's review, was also distributed to the Society by the publishers. It created a great amount of merriment: *St. Louis* against *New York*, and the verdict, we were obliged to confess, was generally for St. Louis. I simply call your attention to a *funny co-incidence.*

MEDICUS.

EXCISION OF THE LARYNX.

By Professor BILLROTH, of Vienna.

[We are indebted to the politeness of Dr. E. Montgomery, of this city, for the following.]

Dr. T. L. Stuever, of Vienna, writes to Dr. E. Montgomery, of this city, that a short time ago Professor Billroth extirpated the greater portion of the larnyx in a patient at the Vienna Hospital. It seems this organ was very extensively involved in carcinomatous degeneration, and with the hope of saving the patient's life, this very difficult and dangerous operation was undertaken and successfully performed. Dr. Stuever, who is assistant to Dr. Stork, the celebrated laryngoscopist, writes that the latter has invented an *apparatus to supply the place of the excised larynx, by which the patient is enabled to speak distinctly, so as to be audible at a distance of ten feet,* but of course without much modulation of voice. Dr. Stuever also mentions that he can breathe and swallow with perfect ease and composure, and is in every way in a most promising condition for complete recovery.

By this bold and hazardous operation, the distinguished Vienna Professor of Surgery has added another laurel to his crown, and great credit is due to Dr. Stork for the talent and ingenuity displayed by him in supplying an apparatus as a substitute for the excised larynx. We also learn from the same source that Dr. Stork is preparing for early publication a comprehensive work on laryngoscopy.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

ST. LOUIS, January 24th, 1874.

Dr. Hodgen reported a case of procidentia uteri with cystocele. The anterior wall of the vagina had been pushed down, and the vagina had become remarkably large. He began treatment by making the usual V shaped incision in order to diminish the size of the vagina, and retain the bladder in its normal position. After the operation he observed a small band four or five inches in length, stretching across the vagina, running from the left lateral portion of the vagina, passing near the uterus, and attached to the opposite side of the vagina. He doubted the existence of three hymens in one case—and that a virgin, as mentioned by Dr. Boisliniere. He considered it improper to speak of cicatrices and fleshy bands, as hymens.

Great care should be exercised in throwing water into cavities in this region—uterus, vagina, or bladder.—He had seen cystitis caused by injecting the bladder daily. This is entirely unnecessary. After lithotomy, the rule is to wash out the bladder *but once* or perhaps twice. Inflammation is frequently produced by washing out the bladder too often.

Dr. Gregory said there was not a mere possibility, but a strong probability, that inflammation will ensue where injections are used after the operation for atresia vaginæ. Still he believed in washing out the parts. He would even like to wash out abscesses after opening and evacuating them. His friend, Dr. Hodgen, had

been fortunate in treating his cases without washing out the parts. In the case reported, on which he had operated, there was suppuration of the entire mucous surface of the uterus, probably from the admission of air; and yet he believed that still greater inflammation would have resulted, had he not washed out the parts.

Dr. Keith reported a case of metroperitonitis—the result of retained placenta. Miscarriage had occurred, probably caused by the use of a sewing machine, at the end of the fourth month of utero-gestation. Fœtus was expelled, and patient supposed placenta had passed also. Patient had received no medical treatment until the seventh day afterward. When first seen, the symptoms were: pulse 148 and full, temperature 105° F., skin hot and dry, pain on pressure over the hypogastric region; could not bear the weight of the bedclothes on her abdomen, complained of chilly sensations and intense pain in her head, hiccough and slight nausea.

Treatment.—Removed placenta by introducing hand into uterus; injected the uterus daily, for a week, with Labarraque's Solution (tepid water O i, sol. sodæ chlor. ʒ ij), using a female catheter and a large syringe gently.* Gave quinia gr. iij and morph gr. ¼, every three hours, for four days and nights, then less frequently. Kept large poultices to the abdomen, constantly warm. Kept saucers full of chloride of lime sitting about the apartment. Used morphia hypodermically to control the nausea and vomiting. Permitted no one but the nurse to enter her room. At the end of three weeks she resumed her duties as seamstress.

* [A very questionable procedure.]

Dr. Prewitt exhibited a post-mortem specimen (brain and heart) of a case of progressive paralysis—hemiplegia. On admission to City Hospital he diagnosed the case "cerebral embolism." He detailed the symptoms by which he was led to that conclusion. He could get no previous history, only the patient's imperfect statement previous to death. Patient suddenly fell and was unable to rise, became unconscious, was sent to City Hospital, and afterward regained his consciousness for a brief period. Autopsy revealed no embolus, but extensive meningitis. He suspected cerebritis rather than meningitis. The entire surface of the brain was covered with a coating of lymph. Such obscure symptoms of meningitis, he said, were frequently presented. He stated that the patient had also had an attack of paralysis on the left side a few years previous, but had entirely recovered. The last attack occurred on the right side. Embolus occurs most frequently on the left side, producing paralysis on the right side.

Patient had complained of severe pain in the head, located posteriorly and on the left side, near the base of of the brain. A systolic bruit of the heart was heard, but the valves of the heart were perfect; found nothing to account for the bruit.

Dr. Heyer remarked that he saw the patient before he was sent to hospital, and that he immediately diagnosed it a case of cerebro-spinal meningitis. He detailed the symptoms from which he deduced his conclusion. These were, partial paralysis (paresis), nausea and vomiting, severe pain in head, obstinate constipation, etc.

Dr. Hodgen remarked that he had no doubt but that the patient *had* suffered from the effects of brain clot

(cerebral embolism) in the beginning of his attack, although no embolus was found on *post-mortem* examination. He had assisted Dr. Prewitt in the autopsy. The anterior pyramids of the medulla oblongata were affected.

Dr. Alleyne remarked that he had never seen a case of cerebro-spinal meningitis ushered in by such symptom as paralysis or paresis either, although paralysis frequently occurs later in the course of that disease. He would like to know if any other member beside Dr. Heyer had ever observed such as an initial symptom.

Dr. Hughes reported a case of paralysis connected with cerebro spinal meningitis, having occurred in his practice.

Dr. Bryson remarked that there may have been conditions of the spine below where the scalpel reached in the autopsy which would account for the paralysis in the case reported by Dr. Prewitt. He thought no autopsy in such case was complete without an examination of the entire medulla spinalis.

Dr. Prewitt next exhibited a post-mortem specimen (brain and heart) of a patient who had died at hospital of hemiplegia, the result of cerebral hemorrhage. Autopsy revealed the presence of a clot in the right lateral ventricle of the brain.

Dr. Montgomery stated that several (six or eight) cases of meningitis had recently occurred in his practice. He detailed the symptoms. Pain in head, rigors, nausea and vomiting, obstinate constipation invariably. His treatment consisted in cupping and leeching at the back of the neck, active purgation, bromide of potassium, and hydrate of chloral. He used hydrate of chloral for the relief of pain, for which another

physician had given large doses of morphia and quinia, unavailingly. One case died; all the others recovered speedily. In one case, he had given iodide and bromide of potassium and quinine, without benefit—then he used hydrate of chloral in doses of one scruple largely diluted, with water repeated every two hours. He used chloral instead of morphia to allay pain in cases of meningitis, when other remedies failed.

Dr. Kennard could not see the value of chloral in these cases. Chloral produces hyperæmia of the brain. He considered chloral a bad remedy in such cases. He also thought it difficult to differentiate a case of cerebral hemorrhage from a case of cerebral softening—as in the last case reported by Dr. Prewitt.

Dr. Johnston related a case of laryngitis in an adult, which resulted fatally before laryngotomy or tracheotomy could be performed. He detailed his treatment to be sol. arg. nitr. gr. xx to ℥i of water, locally. Calomel and quinine internally. Society adjourned.

ST. LOUIS, January 31, 1874.

Dr. Montgomery offered a preamble and resolutions relatively to ministers giving certificates to quacks and "advertising doctors," urging the Society to exert its influence against the pernicious practice. After a lengthy discussion, the resolutions were, on motion, laid on the table.

Dr. Gregory exhibited a post-mortem specimen of iliac aneurism. The large sac was filled with laminated fibrin. The patient died of exhaustion. Autopsy revealed no aortic aneurism, as he previously suspected. Patient had had syphilis. The coats of the arteries were not degenerated. Examination of the arteries in the wrists and

arms during life did not reveal a degenerated condition of their coats. He considered aneurisms as growths of the coats of the arteries, and not as mere dilatations of the external coat, as the books teach. The same conditions occur in the coats of veins, they are dilated and elongated into immense cysts.

Dr. Newman exhibited a specimen of tape-worm (*Tænia lata*) recently taken from a female patient, aged 35 years. His vermifuge consisted of a large dose of ol. terebinth and ol. ricini, followed by an active purgative. Worm measured 21 feet. He thought the head had been expelled. He remarked that the worm had no analogue in nature. Where did it come from? Is it of spontaneous origin? The old idea of metamorphosis among these worms as with caterpillars has been abandoned. The tape-worm is now considered dependent upon germ or parental origin. The *Tænia solium* is developed in man only. We find the conditions necessary to its final development only in man. It produces millions of eggs—these eggs, however, do not develop in man, but, passing out with the fœces, enter the mouse, get into the liver of the mouse, and while there they are called *cysticerci*. They would terminate their existence in the liver of the mouse, were it not for the fact that they afterward find lodgment in the dog, the rat, the cat, the sheep and the hog, and finally get into the stomach of man, from eating sheep, hogs, etc., and are fully developed in man. Here they produce their eggs. Usually only one worm is found in the human body. This is astonishing but true. We would suppose that so many millions of eggs would develop many worms. He was at a loss to explain why this is

so. He said there are two species of tape-worm; the tænia solium and the tænia lata.

Dr. Borck said that he used chloroform and croton oil in such cases. His method was to keep his patient on a low diet for forty-eight hours, then give chloroform i followed in half an hour by two or three drops of ol. tiglii. Usually the worm begins to pass in an hour afterward. He found this treatment mentioned in a German paper. Had tried it successfully in four or five cases—his wife first.

Dr. Montgomery remarked that tæniæ are probably more common than any of us are aware. They are probably present and cause the trouble in many cases treated for diarrhœa and for dyspepsia. He used either of several remedies. He had succeeded in expelling the worm with carbolic acid administered in pill coated with gelatine. This remedy he found mentioned in the *Medical News and Library*. Felix-mas (male fern), ol. terebinth, kousso, an emulsion of pumpkin seed (pepo seminis), an infusion of the bark of the root of the pomegranate, chloroform and ol. tiglii, were each a specific for tæniæ. All were good anthelmintics. He rarely used turpentine, because it nauseates. He commended the chloroform and croton oil treatment. Croton oil, said he, is a good purgative; there is no danger in using two or three drops; there is no exhaustive effect; the patient can readily eat afterward.

Dr. Edgar was reminded by the present discussion of the impropriety of eating raw meats, and especially of prescribing raw beef as physicians frequently do in treating chronic diarrhœa. He had had a case recently under treatment, which proved to be the variety of tænia found in the ox, the *Tænia mediocanellata*, as the head was

obtained, which he had submitted to Dr. Dean to diagnose. The treatment he recommended was to cause the patient to fast two days, giving a saline purgative the day before the worm medicine. He preferred the *pomegranate*, a decoction of the bark of the root, two ounces to the pint of water, given in broken doses every half hour. This remedy was not unpleasant to the patient, or harsh in its operation. Patient should look carefully for the head. In the case referred to the patient took the pint of decoction and expelled many yards of the worm; the head not being found the dregs were resteeped and pressed for another dose, which brought the head. Prescribing raw scraped beef was not free from danger, neither is dried or smoked beef in so common use.

Dr. Porter confirmed Dr. Edgar's statement. He had secured five worms by that method of treatment. It is a very pleasant remedy. It is not necessary to give a cathartic afterwards as the worm comes away frequently without it.

Dr. Dean, being called upon, remarked that vegetable and animal parasites are much more numerous than one who does not devote considerable attention to natural history would suppose. Instead of two species of tape-worm as had been suggested, there are more than twenty species in the order of cestodes. There is no *Tænia lata;* what was once so called is the *Bothriocephalus latus* whose generative organs are quite differently arranged. All the tape-worms he had removed or examined in St. Louis belong to *Tænia mediocanellata* obtained from eating rare, dried or uncooked beef. He hoped he would not be thought too didactic in what he might say. ["Go on!"]

He resumed: The tape-worm is not an individual, but a community or colony, of which the links or joints are the individuals. The scolex or head with its suckers and hooklets, when the latter exist, firmly anchors the whole to the intestinal wall and holds the colony in the canal, and gives off the joints which mature as they recede from it. Each link is of both sexes during some period of its life, the male organs usually maturing earlier and atrophying to make room for the ova and embryos in the female organs. The food is absorbed or imbibed through the surface, and is not taken into an alimentary canal; it is not necessary that medicines should kill the worm, to remove it, but that the head should be paralyzed. In the two principal stages of development, it exists under two different sets of conditions, usually as a guest in two different hosts; some kinds, however, passing one stage, free, swimming about in water. If the joints or ova of *Tænia solium* are devoured from human stools, by swine, they are developed to cysticerci in the muscles of the animal and it is said to be measly. If, in turn, we eat of the measly pork, insufficiently cooked, the cysticerci are developed in our intestines to the complete stage—or tape-worm colony. Flint states in his Physiology, that pork tainted with trichinæ is measly. When a boy, he (Dr. Dean) was taught that feeding hot feed and slops, as hot dishwater, etc., to swine, would cause measles. When the joints or ova of *Tænia mediocanellata* are lodged upon grass and are cropped by cattle they become measled, and we obtain this tænia from eating their flesh. He thought perhaps not enough importance was generally attached to the fact that by antiperistaltic action mature joints or ova of a tape-worm may be brought

from the small intestine into the stomach, where they are likely to develop and produce measles in man, which might be much worse, for example, a single cysticercus in the eye, than the irritation caused by the tænia in the intestines; this is an important reason for removing such worms.

More than three-fourths of all the dogs in the world are kept as pets or for pleasure; yet no other animal harbors so many parasites injurious to man and the domestic animals.

Besides its many other parasites, the dog harbors five species of tape-worm. The mortality of sheep, in Scotland and other countries where they are attended by dogs, from sturdy, or cysticerci in the brain, is very great. Many shepherds regularly give their dogs vermifuges to rid them of these tape-worms; but this helps little where so many more dogs are allowed to roam and run over the same country, without this precaution. The minute three or four jointed *Tænia echinococcus*, which infests the dog, gives us all our echinococci, and hydatids of a parasitic nature, in our livers and other organs.

Throwing uncooked remnants of ham and other meat into our slop-buckets to which rats have access, may spread parasitic diseases (particularly trichiniasis) through them and through swine, and especially through swine, when dead rats themselves are thrown in. Slop contractors usually keep herds of swine to which they feed the offal removed from cities, to increase their profits. Such food should be steamed or boiled. In some investigations upon rats conducted over a year ago, he found, out of ten rats, one very young one with a single undeveloped cysticercus in its liver, all the rest having from two to six. In one rat to which he had fed trichinous ham (from eating which a family of six persons had previously died), he found, two days after feeding, muscular encysted and un-encysted trichinæ, probably obtained from previous access to ham given a pig, free intestinal trichinæ, a tape-worm three feet long in the small intestine, six cysticerci (*C. fasciolaris*) in the liver, and in both stomach and intestines, ova of *Trichocephalus* (*dispar?*), ova with moving embryos, and free embryos. This last he believed to be a discovery of his own. Leuckart states that the ova require no intermediate host for development of the embryo from the egg, but six months or longer in water or moist earth. Strangely enough, the very animal (the rat) to which Davaine fed tricho-

cephalus eggs containing embryos, which passed them in the droppings unchanged, was the animal in which he (Dr. Dean) was astonished to find the three stages existing. In the stomach and intestines of the very next rat killed, trichocephalus ova without embryos were found. These rats had access through rat-holes, where they were caught, to the sewer connections of out-door privies where the ova were probably obtained from human fæces. In the country, every mother thinks her child has worms, and is sure of this whenever the child rubs its nose. Probably the cases are numerous there as compared with the population of cities, as human stools and the droppings of animals are so common in the fields, behind buildings, under trees, etc., and the ova may adhere to apples and other things eaten or taken into the mouth.

This matter of entozoä is of great sanitary importance as regards guarding the sources of our city water-supply and the district through which it flows. Each of many of the round and flat worms produces millions of ova which are hard to destroy, and some pass one stage of development in water. When the crushed bodies of rats and other small animals in our alleys, and the contents of the bowels of our own population, and of the populations of other cities above us, are washed through the sewers to our river, and the viscera from slaughter-houses, dog-pounds and scavenger-boats, and the like, are thrown into the same stream, the facts are, that notwithstanding the myriads of failures for which nature so bountifully provides, but too many parasites will find homes in our bodies through the water we drink.

Dr. Kueckelhan, in response to calls, said that he used the ethereal ext. of felix mas combined with pulvis rattleræ in expelling tape-worms.

In 1846 it was thought by Siebold and Kuchenmeister, entomologists, that trichinæ were the larvæ of tricocephalus dispar. Muscular trichinæ are different from bowel trichinæ as a disease. Muscular trichinæ have no generative organs,—these are developed in the bowels. Trichinæ occur in rat, cat, dog, hog, sheep, cattle and man. The laws of Moses were excellent sanitary laws; they forbade the eating of any animal that did not split the hoof or chew the cud. A prosector by the name of Hilton, in Guy's Hospital, in 1832, found chalky granules in the

body of a man who had died of cancer of the breast. In 1835 Owen, another prosector, found them encysted and non-encysted in a patient, and gave them the name *Trichina spiralis* because of their resemblance to hair. This drew the attention of Prof. Henle, in Berlin, to the subject, and he found trichinæ in the two bodies, which he dissected there that winter.

Biddy, in England, in 1850, and Gurlt, in Berlin, and Herbst, in Goerting, next found trichinæ in animal flesh. This caused the subject to be noticed by others, and accounts of the discovery of trichinæ soon came from England, America, and Holland, but none from Russia. Virchow in Vienna, Leuckart in Giesen, and Zenker of Dresden, with the aid of the government, made large feeding experiments, with a number of different kinds of animals. These men, by experimenting, found that the trichinæ were sexless or neutral while in the muscles of any animal, but that on coming into the bowels of flesh-eating animals (carnivora), they became sexually developed, and increased in size,—that they hatched in forty-eight hours or less time; and that they are viviparous. The trichinæ then seek another place, perhaps for further development, do not know. They have by instinct a law of wandering—this law is centrifugal; they wander from within outward,—they travel by a straight road, until the are checked in their progress by an impermeable tissue, *e. g.*, muscular or aponeurotic tissue. They never did *encyst themselves.* Like any other foreign body, they cause an irritation in the locality where they are checked, and the sarcolemma throws out a plastic matter which surrounds them. This is what we call the cyst. The harpoon was first used in Dresden, in 1862, and afterward in Leipsic, in 1864. Epidemics of trichinous disease prevailed repeatedly in Prussia and in Saxony until 1870. We should harpoon or examine the larynx of every hog killed. The larynx is the place where trichinæ are most frequently checked in their outward wandering.

There is no cure for the disease after trichinæ have entered the muscles. They will stay there till the resurrection. *Trichinosis* is the name applied to this disease, while the trichinæ are yet in the bowels. *Trichiniasis* is the term applied after the trichinæ have entered the muscles. The first, or *bowel trichinæ* is curable; the second, or *muscular trichinæ* is incurable. Treat-

ment of trichinosis consists in purging the trichinæ out of the bowels. The German plan when he was a boy consisted in purging each patient in either stage, with drastic chologogue medicine. English and American entomologists have done most toward developing the subject of trichina.

Society adjourned.

St. Louis, February 7th, 1874.

Dr. Rumbold read a brief paper on the tuning fork, as a means for diagnosing perforation of the membrana tympani. He said, that should the Eustachian tube, in any case of perforated membrana tympani be impermeable, this will be the only certain means of detecting this condition, especially if the opening be small and hidden.

Dr. Prewitt reported a case of trichinous disease, illustrating the difficulty of arriving at a correct diagnosis, from patient's statements. Patient entered city hospital five weeks previous with diarrhœa and vomiting. Said he had taken none but well-cooked meat, *e. g.*, sausage and pork—had been at work for a butcher, standing in water above his ankles, and on admission complained of intense soreness in all his muscles, so painful that he would cry out whenever he moved. There was no complication of the joints whatever. The joints had never been swollen. He diagnosed it a case of acute muscular rheumatism, and treated him accordingly. A few days ago he examined the patient's larynx, and with Dr. Michel harpooned his muscles, and, under the microscope they found non-encysted trichinæ, partially coiled and very large. He also reported that another case of muscular rheumatism was not yielding to the treatment, and that he would harpoon his muscles, examine with the microscope and report at next meeting.

Dr. Kennard remarked that, in his opinion, there was no such disease as muscular rheumatism mentioned by Dr. Prewitt. It was a misnomer. Myalgia or neuralgia of the muscles was the proper term for the affection.

Dr. Youngblood reported a case of dislocation of the patella, and mentioned the method by which it was readily reduced. He also reports an interesting case of injury of the skull, accompanied by cerebral symptoms.

Dr. Hughes read an elaborate paper on the hereditary trans-

mission of the neuroses in general, and of epileptiform seizures in particular, and their relation to insanity, with the reports of cases and their treatment; making favorable mention of bromide of potassium and ferro-cyanide of potassium.

Dr. Montgomery thought that physicians used bromide of potassium too largely, following the example and advice of Brown-Séquard. Injurious results had occurred after its prolonged use with two or three of his patients. They became dull and stupid and at length died of severe cerebral symptoms. Bromide of potassium will allay the excitement in these cases, and its occasional use will be beneficial, but he preferred the following pill in such cases: Phosphorus, gr. $\frac{1}{100}$; ext. nucis vom. gr. $\frac{1}{8}$, ferri pyrophosphatis gr. ii. One three times daily. He advised hygienic treatment, and gave bromide of potassium occasionally.

Society adjourned.

CLAYTON KEITH, M. D., *Recording Sec'y.*

Reviews and Bibliographical Notices.

THE STUDENT'S GUIDE TO MEDICAL DIAGNOSIS. By Samuel Fenwick, M. D., F. R. C. P., Assistant Physician to the London Hospital. From the third revised and enlarged English edition. With eighty-four illustrations on wood. Philadelphia: Henry C. Lea. 12mo. pp. 328.

The subject-matter of this book is well arranged. It contains the latest and most approved views and results of medical investigation, and does without doubt supply many valuable hints. It is not intended to divert the student's attention from the careful study of Flint, Graves, Aitkin, or like works of accuracy and thoroughness; but to supply a more convenient work for reference. It is admirably published with many and clear

cuts, a fresh, bright print and excellent paper. It would be well if more books were as attractive.

MEDICAL LEXICON. A Dictionary of Medical Science with the Accentuation and Etymology of the Terms, and the French and other synonyms. By Robert Dunglison, M. D., LL. D. A new edition enlarged and thoroughly revised, by Richard J. Dunglison, M. D. Royal octavo, pp. 1131. Philadelphia: Henry C. Lea. 1874.

From the time Dr. Dunglison issued the first edition of his Medical Dictionary, the Medical Profession in this country rendered an almost unanimous verdict in its favor. That the author was particularly fitted by nature and culture to do this important work for the profession better than any other man in this age was, and still is, the current opinion.

The only possible question now is, whether the editor of this edition has completed the work as begun by his venerable father, on the plan and with the accuracy and thoroughness; we believe he has.

The typographical alteration in this edition is doubtless a great help to ready reference, "while particular care has been devoted to the derivation and accentuation of terms, making it a complete pronouncing dictionary of medical science." The topographical arrangement also has been so modified, it is believed, as to render reference more easy. The capacity of the page is enlarged, and the number of pages increased by one hundred. The physician who cannot afford this work, can hardly afford to live in the medical profession.

TREATISE ON THE DISEASES OF THE EYE, including the Anatomy of that Organ. By Dr. Carl Stellwag (von Carion). Translated from the fourth German edition by D. B. St. John Roosa, M. D., and Charles E. Hackley, M. D. New York: William Wood & Co. 8vo. pp. xvii—915.

This new edition of Stellwag's great work on Diseases of the Eye has been thoroughly revised. "*One hundred and fifty pages are entirely new,* while changes have been made in nearly every page of the work." "The article on cataract has been enlarged by the description of two new methods of removing the crystalline lens," also Loring's adaptation of the ophthalmoscope. Indeed, the work has been so long before the medical

public, as scarcely to need more than a notice of the fact of a new edition being now ready. The work is thorough, accurate, and a most valuable one on all that pertains to ophthalmology to the present date. Some of the plates are not complete, (see page 141.) Colored lithographs, test-types, complete index of authors, and general index are added.

The type is rather fine but clear. G.

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN. By J. Forsyth Meigs, M. D., and William Pepper, M. D. Fifth Edition, revised and enlarged. Philadelphia: Lindsay & Blakiston, 1874. 8vo. pp. 1008, cloth $6.

[For Sale by the St. Louis Book & News Co.]

The time is so recent (Dec. 1870), when we expressed in unmistakable terms our high appreciation of this work, that it is quite unnecessary to *repeat*, and we see no occasion to *vary* the notice laid before our readers at that time. Hence, we content ourselves with calling attention to the industry and enterprise of our authors in issuing this edition, to include the changes in the views of the most careful observers to the present time, particularly diseases of the heart, progressive muscular sclerosis, treatment of scarlatina, measles, variola and vaccine disease. Among the articles supplied in this edition may be mentioned pulmonary emphysema, pneumo-thorax, affections of the tonsils, retro-pharyngeal abscess, malarial fevers, and scrofula. Finally, we cannot do better than to repeat the concluding paragraph of the former notice referred to above.

"In conclusion we feel justified in recommending the work to those who wish to be guided by sound and reliable information in therapeutics and the nature of disease."

A number of Reviews of new books received are in course of preparation and will appear in our next number.

BOOKS AND PAMPHLETS RECEIVED.

A UNIVERSAL FORMULARY, Containing the Methods of Preparing and Administering Officinal and Other Medicines. By R. Eglesfield Griffith, M. D. *Third Edition.* Revised and much enlarged, by John M. Maisch, Ph. D., with illustrations. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

THE SPHYGMOGRAPH; Its Physiological and Pathological Indications. *Prize Essay.* 290 illustrations. By Edgar Holden, A. M., M. D. Philadelphia: Lindsay & Blakiston, 1874.

[For Sale by the St. Louis Book & News Co.]

A SYSTEM OF MIDWIFERY, Including the Diseases of Pregnancy and the Puerperal State. By William Leishman, M. D., Regius Professor of Midwifery in the University of Glasgow, etc. With 182 illustrations. Philadelphia: Henry C. Lea, 1873.

[For sale by Gray, Baker & Co.]

A CLINICAL HISTORY OF THE MEDICAL AND SURGICAL DISEASES OF WOMEN. By Robert Barns, M. D., London, Fellow and Lumbian Lecturer (1873) Royal College of Physicians, etc., with 169 illustrations. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN. By Forsyth Meigs, M. D., and Wm. Pepper, M. D. *Fifth Edition.* Revised and enlarged. Philadelphia: Lindsay & Blakiston, 1874.

[For Sale by the St. Louis Book & News Co.]

MEDICAL LEXICON; A Dictionary of Medical Science, containing a Concise Explanation of the Various Subjects and Forms of Anatomy, etc., with Accentuation and Etymology of the Terms, the French and Other Synonyms. By Robert Dunglison, M. D., LL. D. A new edition, enlarged and thoroughly revised, by Richard J. Dunglison, M. D. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

REPORT OF THE TREASURER OF THE MARYLAND INEBRIATE ASYLUM, for 1873. Baltimore: Wm. K. Boyle & Son, Publishers.

FORMULAS FOR ELIXIRS. Adopted by the American Pharmaceutical Association, and recommended to be used by Physicians and Pharmacists.

NINTH ANNUAL REPORT OF THE ILLINOIS INSTITUTION FOR THE EDUCATION OF FEEBLE-MINDED CHILDREN. Located at Jacksonville, Ills. 1873. C. T. Wilber, M. D., Superintendent.

ON SARCOMATOUS GROWTHS OF THE UTERUS. By William F. Jenks. Philadelphia: Collins, Printer.

THE FOURTEENTH ANNUAL REPORT OF THE BOARD OF DIRECTORS AND MANAGERS OF THE LONGVIEW ASYLUM, State of Ohio. Cincinnati: Wilson, Baldwin & Co., 1873.

AN ESSAY ON HOMOCULTOLOGY. For sale by the Progressive Publishing House. Price 25 cents. No. 24 Fourth Street, New York.

THE LARYNX; the Source of the Vowel Sounds. By Thomas Brain Gunning. Baltimore, 1874.

B. WESTERMANN & Co.'s CATALOGUE of the most prominent German, English, American and French Periodicals, which they supply with dispatch and regularity. Letters should be directed to P. O. box No. 2306, New York.

LITHOTOMY. By Paul F. Eve, M. D., Professor of Surgery in the University of Nashville, Tenn. Nashville: 1873.

CATALOGUE OF THE LIBRARY OF THE SURGEON GENERAL'S OFFICE, U. S. A., and Authors.

AN INTRODUCTION TO PHYSICAL MEASUREMENTS, with Appendices on Absolute Electrical Measurements, etc. By Dr. F. Kohlrausch, former Professor of Physics at the University of Gottingen. Translated from the second German edition, by Thomas Hutchinson Waller, B. S. B. Sc., and Henry Richardson Proctor, F. C. S. New York: D. Appleton & Co., 1874.

[For Sale by Gray, Baker & Co.]

THE PUERPERAL DISEASES. Clinical Lectures Delivered at Bellevue Hospital. By Fordyce Barker, M. D., Clinical Professor of Midwifery, etc. New York: D. Appleton & Co., 1874.

]For sale by Gray, Baker & Co.]

Extracts from Current Medical Literature.

Treatment of Puerperal Convulsions.

Prof. E. R. Peaslee's plan: If upon examination of the urine sufficient albumen is found to indicate serious blood poisoning, the kidneys must be made to act. The application of dry cups over the region of the kidneys, or a plaster of some kind; or in case these fail, the acetate of potash will generally succeed. If the extremeties are œdematous, a free action of the bowels, consistent with the strength of the patient, must be kept up. In this way convulsions will generally be prevented. If the case is so serious as to demand induction of premature labor, "it should be performed as soon as the woman shows any symptoms of convulsions." "It may be done by the use of the warm water douche, sponge-tents, and Barne's dilators." If a convulsion occur without warning, put her under chloroform. If properly and carefully administered she may be kept under it for almost any length of time, but not to the extent of producing stertorous breathing.

"If the veins about the face are full and turgid, it may be well to take a pint of blood by venesection, but, I have not found it necessary to resort to this measure during the last fifteen years." This is done to save the brain, and relieve the nervous centers.

"Next, in every possible way hurry up the labor."

He prefers, above all other means, the use of the hand. "Introduce the whole hand into the vagina, press firmly and steadily with the tips of the fingers against the os and cervix, then another and another, until the entire hand can be introduced and complete dilation accomplished. This being done sufficient delay may be made to determine what the labor-pain will accomplish." If there are no convulsions (chloroform being continued) and the pains are sufficient, we may delay until the head is brought down so as to be delivered with the forceps. If necessity seems to demand, and the pains are insufficient while the hand is in the uterus, turn and deliver, "for there are even chances that the child will perish in either case, and the life of

the mother is first to be regarded." After delivery chloroform may be sufficient to prevent convulsion, if not, hypodermic injection of Magendie's solution of morphine may be added, indeed either before or after delivery the injection may be used.

"The dilatation with the hand is much more expeditious than dilatation by any other means. The first principle in the management of a case of puerperal convulsions is to look to the safety of the mother. Get rid of the child as soon as possible, save it if possible, but at the same time do not risk the life of the mother."

Dr. Anderson, ex-President of the New York Academy of Medicine, remarked on the paper of Prof. Loomis, that he believed "vent must be given somewhere." In one case treated by the inhalation of ether the success in controlling the convulsions was only partial. He then gave twenty grains of calomel, followed it soon after with an injection of turpentine and soapsuds, and the result was an overflow of the bed, and a complete subsidence of the convulsions. He would feel warranted in repeating the treatment under similar circumstances.

From Charity Hospital a case is given illustrating the plan adopted there. Patient had presented no indications such as to create any apprehensions until the morning previous to her confinement. Then her vision was disturbed. Urine slightly albuminous. No œdema. The day of confinement, urine loaded with albumen; and soon after commencement of labor, she had a convulsion. Chloroform was administered, and the warm douche used. Barnes' dilators were introduced within two hours, by their continued use the os was quite well dilated. The membranes were then ruptured, and a dose of ergot given. Within four hours of the first convulsion the woman was delivered of twins of large size, and both living. Labor completed, the chloroform was discontinued, and soon after she had another violent convulsion. Chloroform was re-administered, and means adopted to produce a freer action of the kidneys, skin and bowels than had been used.

When symptoms previous to confinement indicate blood poisoning, means are made use of to produce free action of the kidneys, viz: infusion of digitalis, and acetate or bicarbonate of potass.; and dry cups over the kidneys. If œdema is present, warm bath or hot-air bath, and a farinaceous diet. When a

cathartic is used, some active and reliable one is selected.—*Med. Record.*

Treatment of Delirium Tremens.

At Roosevelt Hospital, New York, the standard prescription for this condition is—

℞ Chloral hydrat., grs. xxx.
Potass. bromide, grs. xl. M.

To be given at bedtime, and continued through the day in smaller doses if necessary.

This is the treatment for a fully developed attack. Milder cases are treated by two drachms of the tincture of lupuline and a bottle of ale at bedtime, and in a majority of instances this is all that is required; for as soon as the patient has secured a few hours sleep, the crisis is passed, and he will then begin to take his beef-tea and milk, and come up rapidly. A patient present who was suffering from alcoholism, and when admitted was very tremulous, was receiving—

℞ Potass. bromide, grs. xxx.
Morph. Sulph, gr. ⅛
M. S. t. i. d.

Belleview Hospital.—"What this class of patients most need is food and rest." Rest is usually secured by the administration of either potass. bromide in large doses, grs. xxx, every two hours perhaps, or chloral hydrat. grs. xx, every hour. It is necessary in using the latter remedy to be cautious with regard to the size of the first doses, until the strength of the preparation and the susceptibility of the patient is fully understood. * * Occasionally even large doses will be of no avail. A very common prescription employed is the following:

℞ Potass. bromide, ʒiiss.
Chloral hydrat., ʒiss.
Syr. Aurantii, Aquæ, āā ʒij.

M. S. Half fluid ounce, and repeated every hour if necessary to procure sleep.

Persistent nausea and vomiting must be treated with administration of ice; and the employment of nutritious injections. Careful examination must be made, and repeated, for pneumonia, especially in the winter, for it frequently comes on very insidiously without any complaint of the patient.—*Medical Record.*

Depilatory Mixture.

A new depilatory mixture is recommended by Prof. Boettger, consisting of one part of crystallized sulphydrate of sodium, and three parts of prepared chalk. Mixed with water and applied to the skin, it effects the easy removal of hair.—*Medical Record.*

Depilatory of Dr. McCall Anderson: Sulphuret of barium, a drachm and a half; oxide of zinc, six drachms; carmine, one grain; this is mixed with a sufficient quantity of water to form a paste, which is smeared over the hairy part; in three minutes it is washed off, and the hair comes away with it.—*Treatment of the Skin*, p. 12.

Pepsin.

In the *Boston Medical and Surgical Journal*, (May 22,) are to be found the results of examination of drugs purporting to contain *pepsin*, by Edward H. Hoskin, M. D.

* * "All is not gold that glitters, nor is all pepsin that is called so, nor do all its preparations contain the promised principle.

"Curiosity at first induced me to examine a sample of Boudalt's pepsin, and getting a negative result I still more carefully tried three other samples of the same make, and found all inert. I then tried Velpeau's, and with the same result, and then various samples of American preparations, but not one could I find that was in any way a solvent of coagulated albumen. I next tried some elixirs and not one of these would produce the required result; then some of the wines, and with the same lack of success. * * * * * *

"But on looking over a review of the new Pharmacopœia, in the *Journal* of March 13th, I noticed the mention of the pepsin made by E. Schoffer, of Louisville, and being anxious, if possible, to find a reliable article, I wrote to him for a sample, and received by mail two descriptions—'saccharated pepsin' and 'concentrated pepsin.' I at once experimented with them, and obtained most excellent results. With one grain of the concentrated article I obtained the solution of one hundred grains of coagulated albumen, and with five grains of the saccharated, sixty grains of albumen—in each case using one ounce of water and six drops of muriatic acid. With one grain, also, of

the former, I procured the solution of 137 grains of raw lean beef. * * * * * * * *

"I have repeatedly dissolved a perfectly good pepsin in sherry wine, added chlorohydric acid and albumen and submitted to a water bath, and then tested for peptone; but in no case have I been able to detect it. From this fact, I conclude that pepsin wines are useless as far as the drug is concerned, and that the presence of the alcohol, or the small proportion of tannin, or both, destroys its catalytic action." * * *

[This view respecting alcohol we have entertained theoretically.]

"Since writing the above I have tried samples of Dr. Hawley's preparation, and find that his wine and glycerole of pepsin are good articles, but the wine does not appear to be a pure sherry and the proportion of alcohol so small as not to interfere with the functions of the principle. They both will dissolve albumen, but not so actively as Scheffer's."

Commercial Pepsin.

"Few remedial agents are more entirely dependent upon skillful and careful preparation than pepsin. It is generally admitted that, when good, it is a valuable medicine; but unfortunately, either from the special difficulties which beset its manufacture, from some imperfection in the formulæ by which it is prepared, or from mere carelessness on the part of the manufacturers, many of the samples that we meet with in commerce are almost, and some are even absolutely, worthless. * * *

"The researches of Prof. Tuson, to which we have already referred, were published in *The Lancet* for 1870. They had for their object the comparison of the real value of some of the chief kinds of pepsin then in the market, and they were evidently conducted with great care. Ten different samples, prepared by six different makers were examined, and the results tabulated. * * * * * *

"The pepsin prepared by four out of the six makers was found to have no digestive power whatever. Of the remaining two kinds, one was almost exactly ten times as good as the other. * * * * * * *

"Another series of experiments on the comparative value of the pepsins of commerce has recently appeared in *The Prac-*

titioner (June and August, 1872.)" "All the samples tested were pronounced to be nearly worthless, a slight advantage being, however, assigned to one of them. * * * A more important contribution to our knowledge of pepsin is to be found in the interesting experiments of Mr. Scheffer. We should be glad to hear of an independent verification of Mr. Scheffer's results, because they promise to yield us not only a good and simple mode of preparing pepsin, but also a satisfactory means of assay."

[The verification is found in part in the above article in the *Boston Journal.*]

"His most important observation is that pepsin may be precipitated from its slightly acid solution by an addition of an equal volume of a saturated solution of common salt. He also finds that true pepsin and bismuth cannot exist in the same solution, and that the solutions sold under the joint names are therefore worthless as far as pepsin is concerned. * * Mr. Scheffer asserts, and his experiments seem to prove, that the activity of pepsin is destroyed by alcohol, even when diluted with one equal bulk of water, and is materially diminished by smaller quantities of alcohol. This would of course put an end to the use of pepsin wine. But on the other hand, Von Wittich, in the paper referred to, asserts that pepsin may be extracted from gastric mucous membrane (the pyloric portion being rejected), after it has been steeped in alcohol, and even from the precipitate produced in glycerine extract of fresh mucous membrane, by the addition of alcohol. Further experiments on the whole subject, however, are demanded."

Bacteria in the Blood.

These microscopic forms have recently been studied by Dr. Eberth, of Zurich, whose researches are published in the *Centralblatt für die Medicinischen Wissenschaften*, November 20th, 1873:

His statement is that he has found in ordinary sweat, small, oval-shaped bacteria, which are frequently united in strings of two or three, and endowed with rather active movements. In spots covered with hair, they attach to the hair, and often form thick layers, whilst others penetrate into the hair, which then splits and breaks. Coloring by means of hæmatoxylin brings

out the isolated bacteria as well as those collected on the hair. —*Half Yearly Compendium.*

Insanity and Intemperance.

Dr. D. Yellowlees, in a paper published in the *British Medical Journal*, October 4, 1873, discusses the relation of insanity to intemperance, either as a cause, a symptom or as a result. He recognizes six forms of insanity, which are, or may be, caused by intemperance, as follows:

1. *Delirium tremens.*

2. Transient acute mania—the true *mania à potu*, which seems to occur in some persons instead of the ordinary form of delirium tremens.

3. The insanity of intemperance, of Dr. Skaes' classification, in two phases—acute and chronic.

4. The insanity which occurs in persons previously addicted to drinking, but who have become abstainers; the melancholia which is the result of direct moral causes acting on the brain weakened by previous excesses.

5. Chronic alcoholism.

6. General paralysis; which, however, is due also to other excesses acting conjointly with that in drinking.

Indirectly, intemperance produces insanity by establishing and transmitting a proclivity to nervous disease, or calling into action such tendencies already existing. Adding to these the insanity due to the poverty, disease, and violence produced by intemperance, Dr. Yellowlees considers it within the truth to assert that half the existing cases of insanity are due to this one cause.

Intemperance is, however, occasionally adduced as the cause of insanity, when it really is only one of its early symptoms; that is, it is often one of the first indications of the loss of the normal self-control. It may, also, be the result of insanity, as in the case of dipsomania, which the author asserts to be habitually associated with some inherited vice of the nervous organization—so constantly so, that the intemperance should be regarded, ultimately at least, as the result rather than the cause. The inherited tendency may itself prompt the habits of intemperance; or they may be induced in the subject by some direct

exciting cause, affecting the unstable nervous organization, such as injury, sunstroke, etc.—*Chicago Journal of Nervous and Mental Diseases.*

Simple Vertigo.

Dr. Clifford Allbutt (*British Medical Journal*, July 26, 1873) gives brief accounts of ten cases of simple vertigo from a much larger number occurring in his own practice. The affection is constant, or intermittent, and its connection with any other neuroses, if such existed, was obscure, to say the least. He considers it to be due to some affection of the cerebellum, or of the adjacent basal ganglia, and cannot trace in it any connection with dyspepsia, as was supposed by Trousseau, nor, in women, with that due to menstrual disorders. Indeed, the symptoms occur, for the most part only in males.

Like migraine, it is very resistent to treatment. The most potent remedies, according to Dr. Allbutt, are, first, change of scene, and removal of all causes of nervous depression; and, second, Turkish baths. The first of these is the most efficient. Of drugs, strychnine is the only one which has been of utility in the majority of cases, and it rarely failed to do some good.

The tendency of the disease appeared to be to wear itself out after a variable period, sometimes, however, extending over several years.—*Ibid.*

The Statistics of Rheumatism. By THOMAS B. PEACOCK, M. D., F. R. C. P., Senior Physician to St. Thomas's Hospital.

Dr. Peacock, in the annual report of St. Thomas's Hospital, gives the following as conclusions arrived at from a careful study of eighty-seven cases of acute rheumatism:—

a. The acute forms of rheumatic fever are most common in early life. The chronic forms are almost peculiar to old age.

b. The disease is more common in men than in women, in consequence of their greater exposure to cold and wet.

c. One attack of acute rheumatism predisposes to another.

d. As many as nine attacks were found to have occurred in one patient.

e. In the majority of cases the disease runs a mild course.

f. In none of the cases reported did the temperature rise above 104° Fahr.; and in only a few did it reach 103° Fahr.

The highest temperature was usually found on the day after admission.

g. Very little joint-mischief is sufficient to cause a rise in the temperature.

h. The greatest risk in the course of the disease arises from cardiac complication. Over 33 per cent. of the whole cases showed more or less signs of it, and in most instances the heart was found affected at the period of admission.

i. Cardiac complications are most common in early life, and are more frequent in the male than in the female.

j. The cardiac mischief is not directly proportionable to the severity of the fever. In a mild case the heart may become affected, while in a severe case it may remain entirely unaffected.

k. Pericarditis is most common in the slight, endocarditis in severe attacks. The former complication is more amenable to treatment than the latter.

l. Cardiac complication although the most formidable, is not the only one to be feared in the course of acute rheumatism. Inflammation of the lungs and pleura are not unfrequent.

m. The treatment consists, in *acute* cases, chiefly of the bicarbonate of potash, with or without some nitrate. In the subacute, iodide of potassium and small doses of colchicum were administered. When the pain was severe, opium or Dover's powder was given at bedtime, and mercurial purges when the tongue was foul.

n. Heart-complications were combated by blisters and poultices.

o. Convalescence was aided by quinine and iron.—*Half-Yearly Abs.*

Remarks on Hematozoa. By T. Spencer Cobbold, M. D., F. R. S., *British Med. Jour.* Aug. 30.

The author called attention to the great interest excited by Dr. Lewis's discovery of worms in the blood of persons suffering from chyluria; and after passing in review some of the more remarkable records referring to the same habits in the case of other parasites affecting man and animals, he referred to his own work and experience with this class of entozoa

In particular, he dwelt upon the sanitary aspects of the question, in relation to infection, and called attention to the remarkable energy displayed by our Indian sanitary authorities in the matter. He especially referred to the labors of Drs. Cunningham, Lewis, Hewlett, Chevers, and Joseph Fleming. Dr. Cobbold incidently referred to Professor Leiserung's discovery of a strongyloid hematozoon in the blood of dogs (as brought under his notice by Dr. Schliep, of the German Hospital), and he exhibited three hearts of animals stuffed with entozoa. The first heart was from a dog, which he received from Her Britannic Majesty's Consul at Ningpo, China; the second, also from a dog, was received from Yokohama, Japan, through Mr. Walsh; and the third, that of a seal, was received from Mr. Coughtrey, Demonstrator of Anatomy at the Liverpool School of Medicine.—*Half-Yearly Abs.*

The Prayer of Agassiz.

Professor Agassiz, at the opening of the Anderson School of Natural History, after a few modest words, felicitously suited to put all their minds into fellowship, said tenderly and with touching frankness, "I think we have need of help. I do not feel that I can call on any one here to ask a blessing for us. I know I would not have anybody pray for us at this moment. I ask you for a moment to pray for yourselves." Upon this the great scientist—in an age in which so many other great scientists have concluded that praying is quite an *unscientific* and very useless proceeding—bowed his head reverently; his pupils and friends did the same. There in silence that was very beautiful, each spirit was free to crave of the Great Spirit the blessing that was needed. For our own part it seems to us that this scene of Agassiz and his pupils, with head bowed in silent prayer for the blessing of the God of Nature to be given to that school then opened for the study of Nature, is a spectacle for some great artist to spread out worthily upon canvas, and to be kept alive in the memory of mankind. What are coronations, royal pageants, the parade of armies, to a scene like this? It heralds the coming of the new heavens and the new earth, the golden age when Nature and man shall be reconciled, and the conquests of truth shall supersede the conquests of brute force.—*Rev. Dr. Deems, in Christian Age.—Johnston's Dental Jour.*

Notice.

THE LINTON DISTRICT MEDICAL SOCIETY.

The Linton District Medical Society meets at Louisiana, Missouri, on the first Tuesday (the 7th) of April next. For papers expected at this meeting from committees, see the December issue of the JOURNAL. These meetings have been so interesting and profitable to the members heretofore, that a full attendance is confidently anticipated on this occasion. A general invitation is cordially extended to all members of the profession in the vicinity to attend and participate in the exercises.

If a few more societies of this kind could be formed in the State, and *similar* energy and enterprise displayed in securing attendance, it would not be long before the fruits of systematic organized work would be manifest.

New Journals.

The first number of the *Chicago Journal of Mental and Nervous Diseases* is received, edited by J. S. Jewell, M. D., Professor of Mental and Nervous Diseases in the Chicago Medical College, assisted by H. M. Bannister, M. D. A quarterly, octavo, of over one hundred pages; subscription $4.00 per year.

The table of contents shows a valuable selection of material gathered from a great variety of sources. We sincerely hope this enterprize will meet with the earnest and prompt appreciation and support from the profession it undoubtedly merits. We respect the courage that begins this enterprize so soon after the failure of a similar one at the seaboard. No less a witness, that the star of empire tends westward, *that it is at Chicago.* This first number being a fair average specimen, there can be little question of its ultimate success, as we fully concur in the judgment of the projectors that there is a decided

want of a journal of this character in this country, and we believe the enterprize to be in the hands of the right men.

We have received the first number of *Johnston's Dental Miscellany.* This monthly of American and foreign dental, surgical, chemical, and mechanical literature, is issued monthly; choice in substance and neat in form, comparing favorably with other publications of the kind; we heartily welcome it to our list of exchanges.

The prospectus of a new journal we have received, the *Archives of Electrology and Neurology*, soon to be issued semi-annually. To be edited by Dr. George M. Beard, of New York. The field intended to be occupied may be inferred from the title. The growing interest in electrology gives promise of success to this enterprize, as well as the acknowledged ability of the editor.

The Half-Yearly Abstract of the medical sciences known as *Rankin's Abstract*, dies with the present January number, being twenty-nine years of age. This information will doubtless be received with mingled feelings of surprise and regret, by a large proportion of the profession. Reason assigned, "that whereas, thirty years ago few books of the kind existed, as years have rolled on, works not dissimilar have been brought out, and contemporary publications have, without exception, adopted a 'periscopic' feature, thereby to a great extent superceding half-yearly retrospects."

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a maximum and minimum thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

JANUARY, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	34.0	48.0	18	37.0	44.5
2	36.0	48.0	19	36.0	40.0
3	45.0	66.0	20	32.0	40.5
4	20.0	25.0	21	49.0	63.5
5	12.0	28.0	22	43.0	49.0
6	20.0	35.5	23	23.5	37.0
7	21.5	40.0	24	15.5	26.0
8	28.0	49.0	25	22.0	40.5
9	33.5	46.0	26	33.5	47.0
10	34.0	45.0	27	39.5	47.0
11	23.0	33.0	28	28.0	39.5
12	18.0	31.5	29	30.0	53.5
13	29.0	34.0	30	27.0	47.5
14	8.0	16.0	31	26.0	30.0
15	0.0	13.5			
16	10.0	26.0	Means	26.9	39.7
17	19.0	41.5	Monthly Mean	33.3	

Quantity of rain: 2.72 inches.

Revolt of Lunatics.

A revolt occurred a few days ago in the lunatic-asylum of St. Andrew's, near St. Petersburg. While the keepers were at dinner the patients burst into a room where some arms were stored, and, having distributed them, prepared for resistance. The wardens endeavored to calm them by argument, but ineffectually, and some of the keepers, having approached too near, were seized and attacked with sword-cuts. Five were killed and two seriously wounded. Recourse was then had to famine; but forty-eight hours' fast was endured before the madmen laid down their arms. Six of the most furious have been placed in separate cells, with strait waistcoats on them.—*Med. Times.*

Mortality Report.

CITY OF ST. LOUIS.

FROM JAN. 24th, 1874, TO FEB. 21st, 1874, INCLUS.

Abscess 2	Cystitis 1	Heart Paralysis..... 1	Pneumonia.....53
Accident..... 6	Diphtheria..... 2	" Dilatation.... 2	Peritonitis..... 5
Anemia 3	Debility 5	Hepatitis..... 1	Pyemia..... 5
Asphyxia..... 2	Dysentery..... 3	Hydrophobia..... 1	Small Pox..... 9
Atelectasis 1	Dropsy..... 5	Hemorrhage..... 2	Syphilis 2
Apoplexy..... 4	Delirium Tremens.. 1	Homicide..... 1	Septicæmia 1
Atrophia 1	Eclampsia..... 2	Inanition 3	Schirris 2
Brain, Conges. of.... 6	EndoCarditis..... 2	Inflammat'n Brain .. 1	Tetanus,..... 9
" Softening of.. 3	Enteritis..... 5	" Bowels. 1	Uræmia..... 1
" Concussion of. 1	Erysipelas..... 2	Liver disease 1	Unknown..... 2
Bronchitis.....17	Fever, puerperalis... 5	Lungs, Conges. of...10	Whooping Cough... 3
Bright's Disease.... 1	" remittent..... 3	Laryngitis..... 3	
Cancer..... 1	" scarlet..... 1	Marasmus..... 18	Total.....358
" of stomach.... 1	" typhoid.....10	Meningitis..... 6	
Cerebritis..... 1	" gastric..... 1	Mening. cereb-spin..11	Stillborn.....12
Consumption.....62	Fracture..... 2	Metritis 1	
Convulsions 21	Heart—hypertrphy.. 1	Old Age..... 7	
Croup..... 5	" Valv. disease. 5	Œdema of Lung.... 3	

Hornet-Sting.

In addition to the local irritation produced by the stings of bees, hornets, and wasps, severe and even fatal results are sometimes known to ensue. In a case observed by Dr. R. M. Cooper, a lady, having accidently approached a hornets' nest was stung six times upon the crown of the head, through a sun bonnet, and four times on the back of the neck. She suffered severely at the time from the stings, and was found by the physician, an hour afterwards, in a cold, collapsed state, with pulse thread-like and almost imperceptible. Though her condition appeared at first to be a critical one, under the influence of active stimulants she eventually rallied. Upon the following day an intense itching was experienced over her whole body, which was found to be the seat of an erythematous eruption. This eruption disappeared at the end of thirty-six hours.—*Trans. of New Jersey Medical Society.—Med. Times.*

THE SAINT LOUIS

Medical and Surgical Journal.

APRIL, 1874.

Original Communications.

*THE HEREDITARY NEUROSES SPASMODICA.—WITH ILLUSTRATIVE CASES.**

By CHARLES H. HUGHES, M. D.

Within a recent period I have seen, in consultation with medical gentlemen of this city, several cases connected with the *neurosis spasmodica*, presenting features quite in common and sufficiently characteristic of the intimate pathological relationship between epileptoid seizures and the transmitted neurosis of insanity and epilepsy, to be worthy of report. One of the cases serves in an especial manner to reveal the protean and transitional character of the symptoms of *le petit mal*. So masked have been the symptoms of some forms of epileptiform disorder encountered, that I have not been able to diagnose the disease from the symptoms existing in the patient himself at the time of examina-

*Read before St. Louis Medical Society.

tion, and have only arrived at a correct comprehension of the true nature of the case after getting the patient's whole history from earliest infancy, together with that of his progenitors, and keeping in view, not only the very intimate relationship of different nervous diseases in the same individual, but especially the facility with which one organic neurosis passes into another by descent from parent to child.

An organic neurosis is not generally transmitted fully formed from ancestor to posterity. This is not the common, but rather the exceptional experience of observers. To transmit a disease fully formed, the blood should be "touched corruptibly" and this condition, while it may be especially true in zymotic diseases and some other morbid states of the blood, is seldom true of the neuropathic disorders, even though we include cancer* in the latter, unless in those forms of transmitted syphilitic epilepsy, paralysis and insanity, which we not seldom encounter in practice, we choose to give greater prominence to the changed condition of the blood than to the altered states of the nerve cells, in impressing the germinal vesicle of the future being. The physiology and pathology of cell-genesis do not throw upon this subject all the light we need, and for the present we must leave

*I shall take occasion in the future, I hope with more enlarged experimental knowledge, to show that cancer is primarily a disease of the nervous system, and that the local change we call cancer, with the ulceration which caps it, is the equivalent of the change and death of part after complete rest, produced by division of nervous communication. [Paper on Physical Diseases from Mental Strain, by Benj. W. Richardson, M. D., F. R. S., etc. Read before Medical Psychological Association of York, England, August 2nd, 1869.] Some plausibility is given to this view by the fact that men whose brains have been subjected to great mental strain have often died of cancer, for example, Napoleon and our own Benton, and the power of electricity to diminish cancerous growths.

it in the hands of the microscopists; but practical observation of fully developed pathological states, establish quite clearly, in regard to the nervous system, what Mr. Tilbury Fox,† in his recently revised work on skin diseases, concedes, in order to explain the transmission of these affections "independent of any blood state," that dispositions in tissues to behave in a particular way are transmitted from parent to child.

As there is a tendency to restoration by exfoliation, elimination, resolution, etc., in certain diseases of the osseous, circulatory, and glandular systems, so in the nervous system we often discover an inclination towards a return to healthy states, more or less marked according to the degree of primary involvement of the nerve tissue, though we may also see the same or some kindred neurosis cropping out under circumstances tending to produce a lowered standard of vitality and developing into fully marked and profound disease in the offspring, and sometimes nervous derangement manifests itself in the children of once diseased but apparently recovered parents, even without appreciable exciting cause in the progeny. But this rarely happens.

When recovery has taken place in the parents, we may look for exemption from nervous disorder, under a continued operation upon offspring of those conditions favorable to health, which removed all appearance of disorder in the parent.

There is a tendency in all neuroses either to extinction of race or recovery. In the most profound involvement of the nervous system a loss of procreative power

†Skin Diseases—Their Description, Pathology, Diagnosis and Treatments—by Tilbury Fox, M. D., London, 1873.

either precedes or (fortunately for the physical well-being of humanity) follows the disease.

"Two laws of nature are concerned in the production of the phenomena (the transmitted neuroses). One is, that peculiarities are apt to occur in descendants for many generations; the other, that there is always a tendency to return to the type of health in beings which have sufficient vitality to perpetuate their species and carry on their race for successive generations.*

"We could not breed an insane (or epileptic) family of which all the members should be insane for generations. We should have sterility and extinction, or a return to a healthy type."

It is also a fact that sometimes none of the children of insane or epileptic parents are either insane or epileptic, or have any of the kindred neurosis, but this rarely happens when the instability of nerve-element possessed by one parent is not atoned for by the counteracting influence of a perfectly stable nervous organization and healthy sanguineous system possessed by the other parent (especially the mother), and even the most perfect soundness of nervous constitution on the part of one parent is not sufficient to ward off the remote manifestations of cerebral or spinal defect in the children or children's children. Nervous diseases like other entailable diseases, may skip a generation and reappear in the remoter descendants. It is doubtless true, that "some children inherit more of the ancestral defect than others," that is, if we take no account of the probable changes which have taken place during inter-uterine life. They start from the womb unequally endowed with chances for the development on resistance, of nervous disease in after-

*Insanity and its Treatment, by G. Fielding Blandford. p. 134.

life. But the child of an insane father, for example, is seldom born without an inherent organic disposition of the cerebral cells to take on morbid action in some form, under circumstances tending to greatly lower the vitality of the system. This tendency may be modified so that it may never be manifest at all, and may even be entirely obliterated by physiological reconstructive influences operating during embryonic and subsequent existence, through several succeeding generations.

Such a favorable issue of a profound neurosis is probable but not common. The rule is usually the reverse of this. With the approach of advanced life, the change of life in women, the commotions incident to puberty and menstruation in the young, the vitiation of the blood by disease, excessive strain upon the nervous system, especially the brain, from any cause, the original defect becomes manifest, or appears in some allied form capable itself of being transformed into the original disease. Certain diseases of the brain and nervous system below it, even when recovered in the individual, leave behind them neurotic scars not easily obliterated; morbid impresses which mark the organism of the cerebral and spinal cells as certainly, though not yet as visibly, as small pox pits the skin.

I have no doubt, when we shall have become as familiar with the microscopic cells of the grey matter of the brain, ranging as they do from the $\frac{1}{12000}$th to the $\frac{1}{1000}$th of an inch in diameter, constituting the ganglionic centres of the seven or eight cortical layers, and with the minute fibres which connect them, as we are with the anatomy, physiology and pathology of some other parts of the body, we shall find changes in their color, consistence, size and shape to account for every form of cere-

bral and so-called mental disease. We have already made great progress in this direction. We know of many definite microscopical changes of the cells of the free surfaces of the cerebrum connected with definite intellectual derangement, and a great deal more than we did a few years ago upon the subject of softening of the cells of the white matter.

In physiological states of the cerebral mass, modifications have been found in the structure of the convolutions. "The convolutions at the end of the posterior lobe are not only marked by the greater distinctness of their laminæ, but contain a great number of cells of a much larger kind than usual—peculiar pyramidal cells with quadrangular bases, which give off four or more processes, the opposite end of the cell tapering into a straight process which runs towards the surface, giving off minute branches and becoming lost in the surrounding net-work."

Dr. Maudsley assumes a difference of structure in the cells of the brain, and quotes from M. Lockhart Clark as we have just done to sustain him in the assumption.

The high authority of Schroeder Von DerKolk is appealed to by Dr. Maudsley as sustaining him in the statement that whenever there are differences of function (in the brain) then differences of structure and composition and connection do exist."

This is justified by analogical reasoning, but to Von DerKolk "microscopic investigation has established this in the completest manner."*

What is true of healthy function of cerebral cells is true of morbid action.

* Schroeder Von DerKolk's Pathology and Therapeutics of Insanity, 1863.

Though Leidsdorf has failed to find and does not hope to find definite pathological changes in many mental disorders, he deems it "incumbent upon us to assume that every mental disorder, however it may commence, whether in a simple loss of mental tone, or as fully declared insanity, is founded in organic changes from which the brain suffers, and these changes may commence in it either primarily or secondarily."*

Assuming, therefore, as a fact as clearly proven as any other of the very many facts in pathology, which we have to receive as true without occular demonstration, that the *nerve-cells* of the cineritious matter of the brain which have once been involved in epileptoid diseases generally undergo a permanent morbid change which endures long after the distinctly recognized disease itself may have passed away, to become the germs of future brain lesion; that each mollecule, whether in health or disease, leaves to its succeeding mollecule the pathological or physiological impress it has received from its predecessor, more or less modified by circumstances connected with its nutrition, we proceed to cite our cases.

We cite them as typical of many more like them which have fallen under our observation, since leaving the hospital at Fulton.

Case I was a boy aged 11 years, a patient of Dr. N. D. V. Howard. Boy's father was under Dr. Howard's treatment for insanity at the County Insane Asylum. Father is still there under treatment for chronic general mania, the result of hereditary transmitted ten-

*Pathologie und Therapie der Psychishen Krankheiten für Aertze und Studierende bierbitet von Dr. Maximillian Leidsdorf.

dency to insanity as predisposing, and excessive "drinking" as exciting cause.

The knowledge of the father's insanity, which existed in a milder form (as the mother stated), before the boy was conceived, lead to those interrogatories concerning the boy's history which resulted in fixing the diagnosis.

The principal trouble with which the boy suffered while under Dr. Howard's treatment was a recurring headache which was always promptly relieved by bromide of potassium.

The headaches have ceased to recur as frequently as heretofore, but a change in the boy's disposition has become manifest. He has grown more irritable and violent than formerly, impatient of the usual restraint and gets angry without cause. Remarks heretofore not disagreeable to him now irritate him. Gets angry with his brothers and strikes them without cause, and when asked why, answers, "he could not help it." Parental chastisements and restraints have proved unavailing to change his disposition, and the mother had concluded before we saw the boy that "he could not help doing as he does" and suspected "something wrong with his head," in which suspicion Dr. Howard and myself both concurred.

More of this boy's present peculiarities might be given, but to avoid tedious detail let it suffice to say that the *tout ensemble* of his symptoms indicate that as compared with himself quite recently the boy is not like his usual self. The transition in his character has been too sudden, and the circumstances under which he displays his "fits of temper" too unnatural to be due to unresisted immoral influences alone acting on a perfectly healthy brain, and the boy's surroundings are not bad.

Now let us inquire into the boy's antecedent history. About four years ago after an attack of measles he became a somnambulist for awhile, getting up and leaving the house while asleep—after this phenomena ceased, "he would at certain times of the night scream out and be all in a tremor as if he was frightened," but when his mother would go to him she found him usually unconscious, and he would fall again into quiet sleep as if nothing had happened.

These symptoms gave place to wakefulness long before day, and sometimes as early as 2 A. M., when he would often get up, saying he could not sleep.

After the subsidence of these nocturnal evidences of cerebral irritation the periodical headaches recurring about every three weeks in the day time came on, and now though the headaches are diminished in frequency and painfulness, the irritability of brain and inherited unstability of nerve-element are manifest in his changed disposition and the explosive paroxysms of unrestrainable and causeless passion.

That great observer Esquirol, in his classical work on insanity, (pages 57 and 58) suspected the existence of epilepsy in children, especially if the father and mother had been similarly affected, "if the child's sleep was interrupted with reveries" or if he was seized without cause.

This boy should live on a therapeutic regimen of ferro-cyanide of iron, pyrophosphite of iron, and bromide of potassium judiciously blended with his daily nutrition from his childhood up to manhood. With this course and the timely use of muriate of ammonia, Fowler's solution, atropine, and other remedies to control the nerve-centres, which may suggest themselves to

Dr. Howard, who is a skillful physician, the patient may be conducted safely between the sylla of impending insanity on the one hand, and the Charybdis of confirmed epilepsy on the other, but the chances are, that under the best of management, before his brain shall have borne the real burdens of the probably trying life before him, his destiny will have been sealed by an order of commitment to the place where his unfortunate father abides with reason dethroned.

This is a sadly interesting case, and typical of a large class of brain disorder in children which fall under the eye of the physician, even when the parents are not suspicious of the gravity of the brain lesion with which the physician has to deal. To the physician, it is illustrative of the tenacity with which morbid states of the cerebral cells cling to offspring, growing with the growth later into one or the other of the profound neuroses.

The next case is like unto the preceding, only in showing the hereditary consequences of insanity. It was an idiotic child, and a patient of Dr. Gericke. Age five years. Cranial development, irregular, but not smaller than normal size for a child of that age. Expression of the face intelligent. The child comprehends ew signs, and makes known a few wants. Indicates by signs a desire to go to stool, and has a preference for particular articles of diet—generally eats but one article of food at a meal. Keeps in constant motion, and climbs up into the windows and other high places, and has other peculiarities of idiotic children not necessary to mention.

Appeared to the mother like other children while nursing. At about nine months, well-marked epileptic symptoms appeared, the epilepsia continuing until about two years ago.

Insanity and paralysis existed in family of grand parents, and the nervous organization of the father is restless and unstable.

We did not promise that much could be done for this case. Obviously, the only course rationally to be pursued would be to endeavor to reconstruct by means of the phosphates and other reconstructive neurotics, the hæmatic tonics and an out-door life, the degenerate nervous organization of the child, and to diminish the irregular disintegration of the ganglionic centres by the bromides regularly given, chloral and quinine at times, the muriate of ammonia, etc. Such a course of treatment pursued along with the simultaneous training of a school for idiotic and feeble-minded children might materially improve the child's nervous organization so as to render her more capable as she grows up, of taking care of her physical wants. Improvement is more possible in the involuntary nerve-centres of reflex action, than in the higher centres of the brain, but no course of treatment or training will ever restore to such a child (what it never inherited the germ of) a perfectly stable nervous system, and I have nothing to add to the common experience that intellectual darkness is the miserable doom of this case, as of all similar cases, through the inherited tyranny of a bad organization.

The last case was one of Dr. Laidley's patients. Aged between 35 and 40 years, an active, energetic business man, the financial manager of a large establishment, upon whom devolves great anxiety and heavy responsibility. Has been an army officer, educated for a lawyer, and unmarried. Has used spirits and tobacco largely but not an inebriate. These and other excesses*

* Venery and venereal.

and influences tending to deprave the blood and depress the nerve-centres, lowered his nervous tone to such a degree, that, about the close of the war, they culminated in slight vertiginous sensations which have steadily increased in frequency, and somewhat in force. Has never yet fallen down. On one occasion he signed a check without knowing it, and has done some other unconscious things during these paroxysms.

His memory has become considerably impaired, and his intellect, to one familiar with the physiognomy of mental derangement, has evidently suffered. He has been a man of greater mental force and sounder mental parts than now. He has exopthalmic goitre. His sleep is shorter in duration than it should be, wakes at from two to four o'clock in the morning, and can sleep no more until the succeeding night. Forty to sixty grain doses of bromide of potassium, given in a glass of water on awakening, prolongs his sleep until seven or eight o'clock in the morning, and maintains the brain in a condition unfavorable to disintegration, and of course to the mental activity so intimately connected therewith, during the greater part of the following day.

The staggering gait and eruption of bromism soon appeared in this case, and much smaller doses than the above will suffice.

In regard to the exopthalmic goitre which existed in this case, we will here say, in parenthesis, that we have before observed this morbid external phenomena accompanying other similar cases, and in disease of the cerebrum with greater mental impairment and have noted its subsidence simultaneously with an abatement or improvement of the cerebral affection, as Dr. Laidley informs me is now taking place with this case.

We have never made any post-mortems to ascertain if a pathological state of the cervical ganglia of the sympathetic existed, or if the heart were hypertrophied in these cases, but we have occasionally found quite satisfactory evidence of cardiac enlargement in the living patient. Hypertrophy is found in more cases of cerebral diseases when no such goitre exists, therefore we can neither affirm nor deny what Virchow* has said on this subject, namely, that hypertrophy of the heart is characteristic of an advanced stage of exopthalmic goitre.

In this case no cardiac hypertrophy was appreciable.

In regard to the cause of the exopthalmos in this case, we have no hesitancy in giving it as our opinion that it, too, is due to a pathological condition of the nervous system both of the brain and sympathetic, and we hope to be able at another time to confirm this opinion by satisfactory evidence.

Our object in this paper is not to speak of treatment or *modus operandi* of remedies in these cases. The paper will, perhaps, prove too long without them. We may say in passing, however, that we advised the patient's withdrawal from business, a change of latitude, and complete mental relaxation, and cheerful surroundings. The shaping of the patient's financial affairs so as to be provided for the possible result of insanity. He was not informed that insanity was probable or imminent, but possible, in order that he might be induced to make every necessary sacrifice to ward off the usual result in these cases. Few diseases lead more certainly to hopeless insanity or dementia than unarrested epilepsy.

* Die Krankhaften Geschwülste, B. III. p. 76.

The Doctor has employed the bromide with the result of a suspension of all symptoms for about three months.

The patient is now using Brown-Séquard's * combination of the bromides before meals and the ferro-cyanide of iron three times a day, in ten to twenty grain doses in syrup pruni Virginiana after meals. The muriate of ammonia, pyrophosphite of iron, chloral and hypodermic injections of atropine will be resorted to if the necessity of a change to control the nerve-centres should appear, after the patient shall have placed himself in the most favorable condition for restoration.

This patient inherits a tendency to nervous disorders from his mother, who had epilepsia, but might have escaped in consequence of his finely developed physical organization, and a rich fund of vitality bequeathed by his father, had it not been for the combination of depressing influences which have operated upon him from his youth up. With all the other sources of mental strain he added, that of a "haste to be rich." He has succeeded in "making money," but has expended more nerve-force in its acquisition than he had to spare, and an inherent defect of nerve-element, which might have remained dormant, develops into morbid activity, in consequence of this, conjoined with the other causes mentioned.

The ganglionic centres of the nervous system re-

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* ℞ Potass. Iodidi, ʒi.
Potass. Bromide, ℥i.
Ammoniæ Bromidi, ʒiiss.
Potass. Bi-carb. ℈ii.
Infus. Columbæ, ℥vi.

M. ʒi before each meal, ʒiii at bed time. Continue 1½ years after attacks cease.—*Brown-Séquard.*

member and transmit in structural change to their successors in the brain and cord the physiological and pathological impressions made upon them, otherwise physical impressions could not be continued, unless continually renewed, longer than the life of the cells immediately impressed. Impressions would cease with the retrograde metamorphosis of the cells into their organic constituents, preparatory to their elimination from the body. There is the remembrance of impression in structural change, (though we can not now always discover it in the complex structure of the organ of our mental operations,) in every tissue of the body. "The virus of small-pox makes its mark on the constitution for the rest of life. We may forget it, but it will not forget us, though, like the memory of an old man, it may fade and become faint with advancing age." The taint of scrofula, or cancer, or syphilis, or other organic disease, is no less certainly remembered and reproduced in structural change in the organic constitutions of children and children's children than the altered brain and nerve cells of the maniac, the epileptic and the paralytic.

"As the nature of man has been slowly developed into that which it now is by a progressive fashioning through generations, so, by a retrograde descent, may it pass backward to a lower stage—the degeneration which the individual who becomes insane without having any predisposition to insanity represents, may observably become the inherent defect or taint of the nervous element of the progeny, so that the acquired, or as it were accidental, irregularity of the parent, determines a natural to irregular, perverse and discordant acts in the offspring. The progress of organic devel-

opment through the ages is a progressive internal specialization in relation to external nature; the human organism as the highest organic development has the most special and complex relations with the external; and the highest mental development as the supreme development of the human organization represents the completest expression of the most special and complex harmony between man and nature. Now this harmony will plainly be destroyed and a discord produced instead, by that inherent defect of nervous element which an hereditary taint implies; for it implies a predisposition to discordant action." Accordingly there is witnessed in the infant (as we have seen in the second case), "long before any responsibility attaches to its acts, either a congenital inability to respond to external impressions, whereby idiocy of greater or less degree is the consequence, or a degenerate state of nervous element (as in Case I), whereby the natural assimilation of impressions and the fitting reaction to them are seriously interfered with."*

The first case recalls to our mind an interesting chapter "on night terrors in children," in one of Dr. Chas. West's lectures† "on the diseases of infancy and childhood," in which he enjoins the watching of a child in whom they frequently occur lest they might "issue in serious disease," but he nowhere intimates a suspicion that these night terrors in children might proceed from serious, but obscure cerebral disorder.

Headache, as we see it in our first case, is also a marked symptom in all the cases of mental disorder in children given by the same excellent authority.

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* Maudsley.

† Lecture xvi, Amer. Ed. 1860.

Dr. West was fully alive, however, to the importance of treating as disease, cases like our first one. It was his opinion "that practitioners in general had not their attention sufficiently alive to some of these forms of mental disorder. * * * * They are passed by as anomalies, painful instances of extreme badness, or of ungovernable temper, or of strange oddity about the child, from the study of which there is nothing to be learned, and for its remedy nothing to be suggested," and he believed many of them to be "instances of a kind of *mental* disorder especially liable to issue in confirmed insanity" and "would always watch those cases of extremely bad disposition, of ungovernable stubbornness, or unmanageable fury," and, as we might expect of so high an authority, he was certainly correct. Such symptoms are among the chief manifestations of affective insanity in childhood.

Our cases suggest important medico-legal considerations, and considerations in regard to what symptoms ought to constitute the distinctive characteristic of *le petit mal et le haut mal,* also some reflections upon the pathology of epileptic and epileptoid disease, which, like the treatment of these cases in detail, on account of the already too great length of our paper, we postpone to another time. For the same reason we omit also the remarks on the relationship between tuberculosis and insanity, with which this paper concluded.

1218 St. Ange Avenue.

A NEW THEORY OF PLACENTA PREVIA.

A Paper read before the St. Joseph, Mo., Medical Association, February, 1874, by J. P. CHESNEY, M. D.

An examination of the literature upon the subject of Placenta Previa, discloses the fact that it is only since the days of Levret and Rigby, that the teachings in regard to it placed it upon a definite theoretical basis. These eminent obstetrical authorities followed by many equally sagacious observers since their day, even down to the present, hold, that from some unknown cause, the vivified germ-cell sometimes commences its development in the inferior segment of the uterus, and that the os uteri internum being at the time closed, the placenta may become attached directly over the uterine cervix. The relations between the uterine walls and placenta thus begun, are supposed to remain intact, unless disturbed by some extraneous agency, until the end of the middle period of gestation, or perhaps as late as the end of the fifth month; at this time a certain physiological process is set up—dilatation of the cervical canal, which renders their normal adhesions no longer possible. The dilatation of the cervix commences at the os internum, and is a direct result of a necessity for increase in the dimensions of the uterine cavity, wherewith to accommodate the growing ovum. The dilatation of the canal thus inaugurated, is not completed until the end of gestation,—and then only at the expense of a detachment, partial or complete, between the placenta and walls of the uterus—hemorrhage, more or less dangerous, being the almost inevitable concomitant. The truth of this theory passed unquestioned until a comparatively recent

date, when Stoltz, of Strasburg, followed by Mathews Duncan, of Edinburg; Barnes, of London; Thomas, of New York, and others of equal note, promulgated a new theory—that the uterine cervix is obliterated from below upward, that the cervical canal is not expanded, and that, in fact, the os uteri internum is closed until the end of gestation; that the detachment of the placenta from the uterine walls takes place because the maternal or uterine surface of the placenta becomes too broad in its area to rest on the narrow inferior uterine segment; and that, therefore, the placenta is crowded from the surface on which it grows, etc. Which of the theories above is the most logical, I shall leave to each reader to settle for himself; the two factions agreeing in no one point save that there is a solution of continuity between the uterine and placental surfaces, and hemorrhage as a consequence.

After the above observations as a preface, I will endeavor to set forth my ideas in regard to Placenta Previa, not stopping to combat the notions as presented above, save when it is essential to the establishment of points in the argument.

We have seen that at the time of the fertilization of the germ-cell the os internum uteri is tightly closed, and from some unknown cause the afterbirth finds here a point of attachment, and, unless from some extrinsic agency a disturbance of the adhesion takes place, the development goes steadily onward until the end of the fifth month of pregnancy. The relations of the parts are shown in cut No. 1. The physiological dilatation of the os internum then commences, and as a consequence the harmonious relations between the womb and afterbirth are at an end. If the placenta be cen-

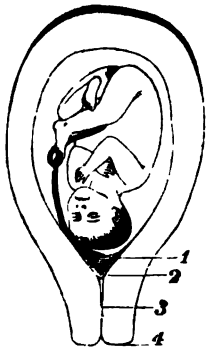


FIGURE No. 1.

EXPLANATION.—Longitudinal section of uterus at end of fifth month of pregnancy. 1. Placenta. 2. Os Uteri Internum. 3. Cervical Canal. 4. Os Uteri Externum.

trally located over the cervix, we have at this time a firm adhesion between the uterine walls and placenta, of at least two and a half or three inches, in every direction from the margin of the os internum; and when the dilatation of the cervical canal commences, instead of the borders of the os becoming detached from its points of connection with the placenta, it carries these identical points with it around its entire circumference, thus leaving a point of placental tissue unsupported and on the stretch.

This point or disk, however small, being without even the actual maternal surface proper to support it, it is a mere parenchymatous structure, tender, yielding, and ready to give up its blood without effort—hence the first hemorrhage of placenta previa. This condition of the parts goes progressively forward, hour after hour, and day after day, each moment strengthening the attachment of the placenta to the womb by a broader margin, and at the same time broadening the denuded

placental area over the cervix, by a continuous dilatation of the canal at its superior extremity—the increased area giving origin to new and repeated hemorrhage. Figure 2 will show the relation of the parts at the end of the seventh month.

FIGURE No. 2.

EXPLANATION.—Longitudinal section of uterus at end of seventh month of pregnancy. 1. Placenta. 2. Os Uteri Internum. 3. Free surface of Placenta. 4. Point of Dr. Barnes' error. 5. Shortened Cervical Canal. 6. Os Uteri Externum.

The same process is repeated continuously, until the end of gestation, the only difference being that it is all conducted on a more extended scale, and that the dangers to mother and child are increased in double ratio—the less able they are to bear the loss of blood, the greater becomes the surface from which it flows. Cut No. 3 will enable the reader better to comprehend the conditions and relations of the uterus, cervical canal and placenta at the time of labor.

It will be seen that dilatation of the internal os involves, from the first moment, a rupture of the uterine surface of the placenta, thus presenting a disk, however

FIGURE No. 3.*

EXPLANATION.—Longitudinal section of uterus at end of ninth month of pregnancy. 1. Placenta. 2. Os Uteri Internum. 3. Free surface of Placenta. 4. Point of Dr. Barnes' error. 5. Shortened Cervical Canal. 6. Os Uteri Externum.

small, from which blood may flow; but, the traumatisure may go farther, in the future, and even produce a laceration into the substance of the placental mass, involving in its course both the maternal and fœtal portions, thus directly endangering the life of both mother and offspring. That the hemorrhage may occur from each of the lesions named, and not from the uterine walls alone, is clearly demonstrated by noticing the anatomy of the organ. There is a maternal and fœtal portion of the afterbirth, in which the circulation is entirely independent one of the other—the vessels of the uterus passing directly into the substance of the mater-

* It will be observed that there is space between the free surface of the placenta and cervical mucous membrane in Cuts No. 2 and 3. It is not claimed that such space actually exists, but that the two surfaces lie in actual non-adhesive contact; the design in the cuts being to show more clearly the os uteri internum, the exposed placental surface, and the extent of the expanded cervical canal.

nal portion of the organ.* The investigations of Prof. Dalton seem to settle this question beyond cavil, he succeeding in throwing air directly from the sinuses in the uterine walls, into the vessels of the uterine portion of the placenta. That lacerations into the substance of the placenta may occur from very slight causes, any one may readily conceive who will remember with what ease the finger penetrates the mass, when the attempt is made to remove it from the uterus, or vagina, after labor; and this is more particularly noticeable in cases where the organ is in an undeveloped, unmatured condition. The rupture into its substance is also made the more probable when in the advanced days of pregnancy the unsupported disk has become quite large, and being, perhaps, only an inch and a half or two inches in thickness, the mechanical force and weight of the amnion and its burden of waters and child, aided by the distended and resisting fundus and abdominal muscles, are brought firmly down upon its fœtal surface. It may be a question with some how the hemorrhage is checked when once begun; the reply would be plainly made that the rugged placental tissue would invite the formation of coagula directly in the rent or rents, and thus induce that very condition of the interior of the free disk of the placenta which has been noticed by various observers; it is found "infiltrated

*It is claimed by some German authority that there exists quite a difference in the structure of the placenta when situated abnormally, from what we find when it has its attachments in a proper situation: thus, when the placenta is previa, milk thrown into the vessels of the cord will not appear at, nor flow from, the uterine surface; but, when it has been attached to the fundus or body, it will, when thus injected, flow readily from this surface. If there be truth in this doctrine, it is another confirmation of the position assumed in the text, that rupture into the substance of the placental tissue is necessary to the hemorrhage.

with extravasated blood, rendering it quite distinct in appearance from the rest of the placenta," and commonly there is also a firm clot adherent to the free surface, forming to all intents and purposes a natural tampon.

From the position assumed above, it will be perceived that there need be no detachment of the placenta from its uterine adhesions, and yet all the dangers of placenta previa be present; this condition may not only remain up to the time when labor actually commences, but may even continue until the labor is well advanced—nay, it may be possible that the child be born and the adhesions between the two organs remain undisturbed. The adhesion between the uterine walls and placenta, are not of the fragile nature we are persuaded to imagine, when reading the notions set forth by those who are molding a hypothesis, the very foundation of which is to be "*detachment.*" It is not, I say, of the tender and feeble order as to be broken down by the "painless contractions common in the ninth month of pregnancy." Nor yet by the painless physiological broadening of the lower portion of the inferior segment of the womb to which it is attached; the uterine surface to which the placenta is attached has undergone much of the expansion required of it, at the end of the sixth month, when the demand is made upon the cervix, and at that date is doubtless nearly, or quite, equal in superficial extent to the fundus; consequently the date of the "narrowness" which will allow the placenta to become "crowded" from the surface upon which it grows, no longer exists, and the margins of the placenta are permitted, if need be, to spread even to the fundus in search of a place whereon to develop; the hemorrhage

occurs after the conditions of "detachment" have passed. The theory that cell-proliferation can "crowd" off portions of the firmly attached placenta, strikes the reasoning mind as an extreme absurdity; such a process has no analogue in nature, unless we suppose that the fœtus in the maternal womb is capable of "crowding" the mother from her couch of repose.

We have seen above that a development of placental tissue at the maternal surface beyond a point upon which to attach itself, is quite untenable, not to say absurd; and argument, equally forcible and plain, may be adduced to refute the notion that it is an expansion of the uterine surface to which the placenta is attached, beyond the expansion of the placenta itself, that is the cause of hemorrhage, by producing a detachment of the placenta. Such a detachment cannot take place as the result of a disproportionate growth between the adherent surfaces, as there is nothing to hinder a coincident development of each *here*, as well as at the body or fundus of the womb, and while the expansion of the cervical canal may carry a given point of the uterine surface to which placenta is attached farther from the central point at which the os internum rested before it began its expansion, it does not necessarily follow that a detachment takes place, for common sense will allow that the yielding tissues, in the free disk of placenta, will permit the attached tissues to move with the uterine walls. The question simply rests between the comparative stability of the adhesions between the uterus and placenta, and the tenacity of the parenchymatous structure of the placenta itself. To give an illustration of the first point let us recur to the placental adhesions of a normal gestation—a condition in no way differing from

the adhesions in placenta previa. Here we see numberless jolts, blows, falls, etc., received by the pregnant female—the immense force and indefinite continuance of the uterine contractions—the rude and unskillful manipulations of the accoucheur—and yet the detachment does not occur; and why? Because it is one of nature's conservative measures, necessary for the preservation of both mother and child; and so far as *detachment* is concerned, the rule, I have no doubt, maintained its force to a very great extent, even in placenta previa; at any rate, we are, by this power of resisting detachment, taught the very useful lesson that agencies of a trivial force cannot break the connecting link.

If the placental tissue itself did not yield in the manner I here suppose, I am decidedly of the opinion that in all cases of central location in placenta previa, the attachment between the uterus and placenta would be a serious barrier to the dilatation of the cervical canal; and, therefore, might greatly interfere with the normal progress of gestation.

The successive stages of the broadening of the free placental disk, the points of its attachment to the margin of the os internum, and the relations which the placenta has to the cervical canal, during its progress of dilatation, may be pretty accurately comprehended by an inspection of the cuts. The same points of the placenta which were attached at the margin of the os internum at the moment of commencing expansion, are to be found exactly attached to the same point at the end of the 7th and 9th months; but, as the circumference is greater, new tissue has sprang up doubtless, to occupy intervening space; and thus, by growth of new

tissue also has the widened surface of the unsupported disk been partially accomplished.

The cervical mucous membrane has, at no time, been in adhesive contact with the placenta; and this fact, no doubt, accounts for the almost unanimous remark among writers, in detailing the history of cases of placenta previa—"I found the placenta detached." This is even so, but the condition is one quite different from the one they suppose to be present. It is doubtful whether the longest finger can even touch the nearest edge of the placental attachment at time of labor; and this will be the more readily granted when it is remembered that the womb receives nearly one-third of its volume, at term, from effacement of cervical tissue; and the womb is then about twelve inches in its long diameter. When the same narrator says, "I readily broke up the attachment which I felt at one side," the conclusion is that he has mistaken a tough coagula pressed between the free portion of the placenta and the cervical portion of the womb, for placental tissue. Adhesions between the placental and uterine surfaces cannot, in my opinion, be broken up, except the hand or some long instrument is introduced into the uterine cavity. As we have no cervical adhesions the accidental hemorrhage can in no case come from the cervical portion of the expanded womb; and we must apply our hemostatic agents to other tissues.

Dr. Barnes, in his efforts to prove the point that the cervical canal is not dilated during the last months of gestation, adduces the clinical observation that he has "often felt the os uteri internum tightly closed above the cervical canal, even at commencement of labor; and has verified the fact on dissecting persons dead soon af-

ter delivery," certainly makes a very unsatisfactory point in the last—and I conceive a mistake in the first part of the paragraph; it is not contended by any one, I think, that the whole of the cervical canal is expanded at once, but that it is a gradual process, conducted from above downward, and, that at all moments, from the time the dilatation commences until its completion, there is a point of close contact between the cervical walls, from which the divergence of the expanding surface takes place; this point, remaining, as it always must, at the superior portion of the undilating section of the canal, answers every purpose of a veritable os internum, and to Dr. Barnes' *feel*, has, no doubt, been mistaken for such.

Cut 2 will make plain this condition of the canal at the end of the seventh month, and exhibit the point which may lead to such an error. "Accidental hemorrhage" may certainly occur when the placenta is attached to the inferior segment of the womb as readily as it does when it is normally situated; but it is not my purpose to treat of hemorrhage so occurring, but to speak only of the form which has its exciting cause in the physiological action of the womb alone. And now we come to the interesting practical inquiry—will the new views of the nature of placenta previa here advanced, give us data upon which to build a better treatment than we have heretofore possessed? The answer is that we are not sure that it will. It seems probable that all the early hemorrhages, and even the later ones up to a period in actual labor, when the uterine action is of sufficient force to break up the placental adhesions, may be almost completely controlled by the scientific use of the tampon; it may be made to act mechanically by direct

compression of the hemorrhagic surface, and by taking off the *tension* of the convex surface, as also by occupying space which otherwise may become a receptacle for effused blood. By the thorough expansion, which its proper application may be made to exert upon the superior extremity of the vaginal canal, almost the entire "free disk" of placenta may be subjected to its compression—part of it directly, and the remainder through the intervening cervical tissue with which its marginal portions must be in immediate contact. By the stimulus of the tampon applied as it is directly against the os uteri externum, we may also facilitate expansion at the same time—thus meeting two important indications with one remedy. Of course other proper constitutional treatment should not be disregarded, in the meantime. I believe that too much cannot be said in praise of the tampon in these cases if *properly* applied; its efficacy, as commonly adjusted, is certainly not very well calculated to inspire confidence in its utility, and as a consequence, this valuable resource in these trying cases is often unused, while "meddlesome midwifery" precipitates the very calamity sought to be avoided. "Scanzoni's method of introducing the tampon through a widely extended speculum seems to me the best means of its thorough application. No instrument is better for this purpose than the long quarto-valved old speculum with which the country "womb-doctor" yet supplies his saddle bags; the blades are closed, and a bag three-fourths less than a dairy-salt sack, made of the same material and well-oiled, may be slipped over them, and thus passed into the vagina; the blades are now opened and the sack crammed tightly, from bottom to vulva—the speculum being gradually withdrawn as the filling pro-

gresses;—*fill the vagina full*, apply the T bandage and vulvar compress, and let the patient remain quiet. *The pulse is always a measure of danger* without taking out the tampon to see whether or not hemorrhage continues. The foregoing mode of management is suggested while the danger is not urgent, and we are encouraged to make efforts for the safety of both mother and child; but there comes a time, and that often when we first reach the patient's chamber, that demands *immediate* interference of another and quite different kind; these are cases where hemorrhage has certainly, or quite probably destroyed the child, and death has already laid his icy finger-tips on the life of the mother. Contrary to what we have always before been taught, *adhesion* is now the death of the mother, whilst *detachment* is her haven of hope. It is like this: the placenta is attached to the uterine walls over a point or area supplied by contractile (longitudinal) muscular fibres, which at time of labor will constrict the open vascular mouths on the uterine surface from which the placenta has been removed; the cervical portion is at this time the only tissue in the womb which is undergoing *expansion*, and as the placenta has never at any time been in adhesive contact with it, there can be no danger of hemorrhage from this source; therefore completely detach the placenta, rupture the membranes, give ergot, use the forceps, or resort to version at once if the detachment and ergot do not speedily restrain the hemorrhage.

In cases prone to post-partem flooding, the danger after the detachment might be in no way mitigated, but this would be no fault of the previous abnormal condition, and would demand the same treatment as if it had occurred after normal labor.

LITHOTOMY.

By R. E. Beach, M. D.

On March 15th, 1873,* a boy three and a half years old was presented for our examination: from the symptoms we judged the existence of stone in the bladder highly probable, hence we anæsthetized the boy and introduced the sound, with which we readily obtained the characteristic "clink." We informed the parent of our diagnosis and the remedy, with its inevitable dangers. The operation was declined for the present, and the patient was placed under the care of a neighboring physician for treatment.

As might have been expected, the little fellow received no permanent relief. In November following his general health began to suffer, and the symptoms increased in severity until, seeing that further medication was of no avail, Mr. L. came and desired me to perform the operation. We gave the patient some preparatory treatment, intending to operate as soon as the case would admit. On the morning appointed for the operation (December 28th), Drs. Hickman, E. M. Beach, and T. N. Livesay being present, the patient was placed upon a table in the usual position and anæsthetized by Drs. Hickman and Beach. The staff was introduced and the stone readily detected. The staff was intrusted to Dr. Hickman, Drs. Beach and Livesay keeping up the administration of the anæsthetic when necessary. The first incision—the lateral operation being preferred in this case—was made one inch in length commencing near

* Our first case—published by request of the Fayette County Medical Society.

the raphe of the perineum, on the left side, three-quarters of an inch in front of the anus, and extended downwards and backwards to a point about midway between the tuberosity of the ischium and anus, as recommended and practiced by Prof. Gross and others. After the first incision, in which was divided the more superficial tissues, the blade of the bistoury was used sparingly, separating the subjacent tissues with my finger, touching those points offering the most resistance with the point of the knife, until the membranous part of the urethra was reached. The Doctor now lowered the staff and pressed it a little to the left so as to bring it readily against my finger, which guided the knife through the urethra and into the groove of the staff, and when satisfied that its point was fairly in the groove, the staff was again drawn up and the bistoury pushed steadily forward, with a slight depression of the handle as the knife entered the bladder, until its point reached the lower termination of the groove. On withdrawing the knife the stone was felt and seized with a small-sized forceps, and by careful manipulation withdrawn. The wound and bladder were now syringed with tepid water. The patient soon recovered from the effects of the anæsthetic, was removed from the table, given a full anodyne, and placed in bed. The hemorrhage which occurred during and after the operation did not exceed an ounce.

January 25th.—The tenderness at the neck of the bladder has now entirely disappeared, and the wound is healed. The stone is ovoidal, of phosphatic composition, and weighs 160 grains. The opening made in the urethra did not exceed four lines. This was easily dilated with the finger sufficiently to accomplish the desired result. We believe this method, recommended

by some of the ablest surgeons, viz: that of making a small incision in the urethra, and dilating the opening, attended with the least danger and the most satisfactory results in case the stone is not very large.

Patoka, Illinois.

THEN AND NOW.

Reading the foregoing report, calls to mind the first operation for stone in the bladder performed in St. Louis, and so far as we know, the first west of the Mississippi river. In the spring of 1836, the late Dr. Prather being the surgeon, called in consultation Drs. Beaumont, Farrar and White, gentlemen at the head of the profession in St. Louis at that time. The patient was a boy ten years old. Being a student of medicine at that time, we were permitted to be present to witness the operation, and assist *in holding the patient still*—it being long before the discovery of chloroform.

Perhaps in no department of surgery is progress more striking than in this operation. At the time referred to, a number of the oldest surgeons were assembled several times, to examine the case and consult as to the best method of operating. The agonizing shrieks of the patient during the operation, the sympathy of friends, all stands in sharp contrast with the methods of the present time; the young surgeons of this generation perform *lithotomy* painless, and nearly bloodless, with almost the celerity, if not frequency of venesection.

W. S. E.

Correspondence.

Messrs. Editors:

Being the consulting physician with the late Dr. Berchelmann, in the case reported in the February number of the JOURNAL, of an ovarian tumor in a girl of eleven years, I desire to say to the readers of the JOURNAL that I positively excluded pregnancy, and suggested a neoplasm in the cavity of the uterus as a probable consequence of hyper-irritation. In the examination I introduced Simpson's largest size probe to the depth of $1\frac{3}{4}$ inches, where it remained immovable.

The tumor which Dr. Berchelmann afterwards discovered was an inch behind the meatus urinarius, of form, size, and color, like a large blackberry, its neck encircled by mucous membrane, a papilloma which was removed by ligation. At the *post mortem* examination I repeated the introduction of Simpson's probe from the vagina through the uterus into the Fallopian tube, thence into the tumor with the greatest facility.

I am of the same opinion of Dr. Engelmann, that the tumor existed long before the accident mentioned took place, but that the discharge which took place from the sexual organs was not "menstruation" neither "from the irritated uterus," but from the diseased ovary, which was Dr. Berchelmann's view also, and was verified in the *post mortem*, as above stated.

THEOD. MEYER, M. D.

Belleville, Ills.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

ST. LOUIS, February 14th, 1874.

Dr. Keith reported a case of acute pneumonia of the left lung, in which there was solidification of the lower lobe.

Patient was a robust, healthy laboring man, 37 years old. Symptoms when first seen: pulse 144, full and strong; respirations 36 per minute; temperature 103½° F.; marked dyspnœa, and sputa tinged with blood. Had been sick five days.

Treatment.—Warm fomentations applied over left side. Pulv. Doveri gr. 10 and hydr. chlor. mit. gr. 2 every three hours for the first 36 hours. Tr. aconite gtt. 6–10 every three hours. Free diaphoresis ensued. Respiration easier. On the third day a saline aperient was given, producing free catharsis. Warm fomentations were continued and quinia in doses of gr. 2 every three hours. Nourishment generous. Patient improved rapidly and resumed work two weeks afterward.

Dr. Youngblood frequently applied blisters, with excellent results, in cases of pneumonia.

Dr. Edgar favored the use of tr. verat. virid. in the treatment of pneumonia. He used gtt. 2–4 every three hours, without the slightest danger of prostration. He considered veratrum viride invaluable in the treatment of pneumonia. He knew of one death from its use. In that case the dose given was one drachm, the fault of the nurse. In pneumonia we watch its course—the heart particularly in aged persons, and render timely support. In the young and vigorous we put down the brakes on the circulation, by giving tr. veratrum.

Dr. Bryson had never bled a case of pneumonia, except with leeches or cups, he gave tr. verat. virid. He gave it not as a sedative, but as a tonic to the heart's action. He was not afraid of producing too great depression.

Dr. Dean considered tr. verat. virid. not only a good but a safe remedy in pneumonia. He thought Drs. Edgar and Bryson were both correct in their explanations of its action. It was both a sedative and a tonic to the heart's action.

Dr. Gregory favored bloodletting in the treatment of *some cases* of pneumonia. This was a very popular plan thirty years ago. He admired Dr. Clutterbuck's views on bloodletting. His own observations had confirmed him in the opinion that Dr. Clutterbuck was an acute observer. He thought the danger apprehended from bloodletting and from tartar emetic was not well founded. He gave tartar emetic advantageously in pneumonia, in his present practice. He considered tartar emetic one of our best expectorants. Cough syrups which do

not contain tartar emetic, do not deserve the name of expectorants. Expectorants containing tartar emetic are followed by infinitely better results than are our modern expectorants.

Dr. Kueckelhan said bleeding was necessary forty years ago; but since the prevalence of cholera in this country in 1832, the character of diseases had changed,—diseases are now more of a typhoid type,—and patients cannot bear bloodletting. He extolled Clutterbuck,—he bled and he purged, he gave a certain remedy which produced *green* stools and the people considered him a wonderful doctor. Dr. Kueckelhan thought the case reported was catarrhal pneumonia—and catarrhal diseases will soon recover if let alone. But in a case of croupous pneumonia, where plastic material is thrown out by the blood, he used tartar emetic and calomel. He also used as sedatives either of the following: tr. aconite, tr. digitalis, tr. verat. virid., tr. lobelia, or tr. ergot.

Dr. Johnston followed Marshall Hall on the subject of bloodletting. As a sedative in pneumonia, he considered venesection an excellent remedy. In his present practice, however, he uses tr. verat. virid. instead of venesection.

Dr. Green quoted Niemeyer as saying that he "would rather trust a patient with pneumonia to the care of a homœpath, than to a doctor whose only hope hangs upon the point of the lancet. He considered pneumonia a very simple disease to treat. Most cases of pneumonia will get well themselves if let alone, or with very little treatment, especially no bloodletting.

Dr. McPheeters said Dr. A. Green was entirely mistaken about the mild character of pneumonia; if he will examine our mortuary reports he will find that more deaths occur from pneumonia than from consumption during many weeks of the year. Pneumonia is one of the most fatal diseases we are called upon to treat. The mortality in this city from pneumonia is fearful. Physicians are not more successful in their treatment of pneumonia now than they were thirty years ago. Rush and Chapman, advocates of tartar emetic and bleeding, were in his judgment as sound practitioners as Niemeyer. He fully concurred with the remarks of Drs. Gregory and Kueckelhan. He believed the lancet necessary in some cases now. Still he uses the expectant or supporting plan generally. He believed we have a different type of disease to treat now

from what it was thirty years ago. It was sthenic then; it is asthenic now. He felt sure that we use the lancet too seldom now in pneumonia. We cannot get the same results from the use of tr. verat. virid. that we can from the lancet. Tr. verat. virid. simply controls the heart's action. In pneumonia there is an increased amount of fibrin in the blood, and a diminution in the amount of liquor sanguinis. Tr. verat. virid. will not relieve this tendency to plastic formation; the lancet, or tartar emetic, will do this. He uses the lancet in such (sthenic) cases now—(one case in twenty). He frequently blisters in pneumonia. No physician who understands his business will allow a blister to become an ugly, open, running sore; this is to abuse the use of the blister. He never regretted bleeding or blistering a patient; but had occasionally regretted not doing so. Tartar emetic should never be used with children.

Dr. Montgomery said three plans of treatment of pneumonia are practiced at present; 1, the antiphlogistic, 2, the expectant or supporting, and 3, the stimulating plan. We meet with three varieties of pneumonia and three stages in each variety,—besides we have sthenic and asthenic forms of the disease. Each case must be treated with special reference to its symptoms and to the form and stage of the disease. 1, Catarrhal pneumonia in a healthy patient will get well on mint water or lemonade. 2, Croupous or diphtheritic pneumonia requires very different treatment; sthenic cases require heroic treatment; no remedy is equal to the lancet in their treatment. We cannot ptyalize such a patient until we draw blood from him; then, and not till then, will the other remedies, *e. g.*, calomel, tartar emetic, tr. verat. virid., etc., act well. He also used blisters in some cases with marked advantage. Blisters are often applied too early in the disease and kept on too long; herein consists the danger to be apprehended from their use. The blister should always be followed by a poultice. Dr. Green is greatly in error when he says that pneumonia will get well *by itself*. Pneumonia has always been a very fatal disease in this country; and our cases require active and careful treatment. He gave tartar emetic as an expectorant in pneumonia. He is careful in the administration of tr. veratrum to watch its effects. Brandy and paregoric will soon counteract its depressing influence when carried too far. He con-

curred with Drs. Gregory, McPheeters and Kueckelhan in their remarks. Like Dr. McPheeters he never regretted bleeding a patient, but frequently regretted not having bled.

Dr. Sumrall used tr. aconite and Dover's powder in the beginning of the treatment of pneumonia, followed by quinine and brandy. He had been a student of Dr. Cartwright of Alabama. He prefered Cartwright's treatment to that of Niemeyer or Clutterbuck. He had treated a large number of cases successfully. In his treatment of pneumonia he had never bled, blistered or given a dose of tartar emetic in his life.

Dr. Leffingwell thought that in the treatment of internal inflammations the heart's action should be increased in force, but not accelerated. Tr. verat. virid. will increase the force of the heart's action as a tonic, and at the same time diminish its frequency, as a sedative. He agreed with Drs. Edgar, Dean and Bryson. He used tr. veratrum in the treatment of pneumonia.

Dr. J. M. Scott thought Drs. Gregory, McPheeters, Montgomery and Kueckelhan had played on both sides of the question of venesection, to-night. He didn't care what Clutterbuck, Drake or Philips or Dr. Gregory did thirty years ago in pneumonia. The question is *what do they do now?* They tell us that the character of disease has changed since 1832; they bled *then*, but what do they do *now?* Do they argue in favor of venesection and tartar emetic *now*, since the type of pneumonia has changed? Will they plead for a change of disease and not for a change of remedies? He never had and never expected to bleed a case of pneumonia. He had blistered but one case of pneumonia in the last seven years. He had long since adopted Chambers' plan of treatment. He detailed his treatment in the following case as an example of his method of treating pneumonia. He was called to see a case of double pneumonia in a woman in the seventh month of pregnancy. He prescribed a flaxseed jacket and enveloped her entire chest. Her pulse was full and rapid. In a few hours the severe pain in her chest and dyspnœa were almost entirely removed. He adopted the expectant and supporting plans of treatment. He used tr. aconite. He considered it as good a sedative as tr. verat. virid., in pneumonia, and not attended with the depressing effects. He used ipecac as a nauseant expectorant. He

considered ipecac far preferable to tartar emetic as a good relaxant. He sometimes gave calomel as a cathartic, afterward quinine, wine and beef tea.

Dr. Prewitt agreed almost entirely with the treatment stated by Dr. Scott. He did not bleed, blister or give tartar emetic in cases of pneumonia. He also preferred tr. aconite to tr. verat. virid., it will control the heart's action just as well, and then there is no danger of gastric derangement or prostration ensuing. He used quinia, wine and beef tea, in the treatment of pneumonia. This treatment had been eminently successful in hospital practice. He invariably used warm fomentations about the chest.

Dr. Hodgen was called on to state his method of treating pneumonia, but the hour for adjournment having arrived, he declined, and on motion, the Society adjourned.

St. Louis, February 21st, 1874.

Dr. Prewitt exhibited a specimen from a patient who had died at City Hospital of hepatic abscess. Patient had had syphilis several years previous, and dysentery for six months prior to present attack of disease of the liver. He stated the usual causes of hepatic abscess. The liver and part of the abdominal parietes immediately over the liver were exhibited. The internal part of the abdominal wall had not been much affected; while the superficial portion had undergone extensive sloughing. Two quarts of pus had been evacuated, ten days before death, by means of the aspirator.

Dr. Prewitt next exhibited specimen comprising the heart, arch of aorta and portion of lung, of a patient who had recently died in City Hospital. Diagnosis: chronic bronchitis, dilatation of aorta with atheromatous degeneration of same, and emphysema of lungs. Autopsy revealed the following lesions; cavity at apex of right lung,—which proved to be a dilated bronchi; œdema of both lungs with some emphysema. At base of right lung was a transparent sac, about the size of a pigeon's egg, filled with air, also at margin of middle lobe of right lung; aorta greatly dilated and covered internally with calcareous deposit, complete adhesion of heart to pericardium, valves normal.

Dr. Gregory next presented a specimen recently expelled from the uterus. The history of the case was incomplete—two days previous a man consulted him stating that his wife was about to miscarry; he prescribed morphia and aqua camphora, and advised complete rest in the recumbent position. To-day this specimen came from her uterus. What is it? A false conception? blighted ovum? or mole? He gave the specimen to a microscopist to diagnose.

Dr. Edgar desired to know of Dr. Prewitt what connection there was between hepatic abscess and a previous attack of syphilis? He thought there was no connection between the two diseases, but that the six months previous dysentery might have some connection with the abcess of the liver in this case.

Dr. Thos. Scott did not think there existed any connection whatever between the syphilis and hepatic abscess. On the contrary the poison of syphilis is exceedingly obnoxious to all gland disease and, hence, especially so to the liver. His rule was, the presence of pus proves the absence of syphilis.

Dr. Gregory stated that as a rule very little pus is formed in syphilitic cases. The more common manifestations of syphilis are swelling of the glands, joints, etc. There is a syphilitic cirrhosis as well as a whisky cirrhosis, *vide* syphiloma of the liver by Virchow, Wagner, Niemeyer, and others. Three out of every five bubos suppurate. In syphilis, the glands are enlarged, indolent, and marked by a want of pain, etc. When a patient presents himself desiring to be treated for syphilis, his custom is to ask how he knows he has syphilis, and if he replies that he had a bubo—that it was opened, and pus evacuated; he informs the man that still he may not have syphilis, but chancroid simply.

Dr. Hodgen stated that Dr. Gregory was correct. In gummy tumors there is softening, and when opened (which is bad practice) unhealthy and illy-formed pus was found. The probabilities are against the dysentery being the cause of the hepatic abscess in this case. This was a single and not a multiple abscess. Persons with suppurating bubos occasionally have syphilis; but suppurating bubos are followed by syphilis exceptionally.

Dr. Prewitt thought there was very little connection, if any, between the previous syphilis and the present hepatic abscess,

in the case reported. As a rule "syphilitic manifestations are not suppurative." In negroes, however, with syphilis, he found the glands about the neck generally enormously enlarged; some suppurated; and if not opened they will open themselves. He could relate many cases of mixed chancre, occurring in the hospital.

Dr. Hodgen exhibited the two halves of the first phalanx of the index finger. Patient—a boy, had injured his finger several months previous, while at play, and after suffering for months, he finally insisted on amputation. There had been inflammation of the periosteum and infiltration of the adjacent soft parts, and he was satisfied that the bone had become diseased. He removed the finger recently and found inflammation of the center of the bone, nearer the palmar than the dorsal surface.

Dr. Hodgen next exhibited a part of the inferior maxilla containing the inferior dental foramen, for the relief of neuralgia. Patient was an old man; had suffered several months, but had never complained of pain in his lower incisor, or canine teeth. He severed the nerve below where it passed through the foramen and thus removed a portion of the nerve also. Patient had had no neuralgic pain since. Ether was the anæsthetic used in the operation. There was serious objection to the use of chloroform, or to profound anæsthesia in these cases. He preferred not to use chloroform. 1, Because less blood is lost in operations without chloroform, chloroform relaxes the tension of the muscular coat of the arteries, and hence more blood is lost. 2, Hemorrhage about the mouth or nose is apt to enter the trachea and produce death by strangulation.

Dr. Edgar remarked that the anæsthetic might be safely used if care was taken to complete the operation as near as possible before piercing the mucous membrane of the oral cavity, and that the anæsthetic by obviating pain, might lessen the hemorrhage.

Dr. Hodgen also exhibited a chicken's tibia, fractured when young. The upper end of the lower fragment had filled with fat. The medulla had changed. The periosteum was abnormally thickened. He supposed that no great inflammation had existed, else the upper end of the lower fragment would have been rounded off by absorption.

Dr. Gregory said a point of surgical interest had been illus-

trated by the bird's fractured tibia—one fragment had continued to grow. When he amputates the arm or thigh of a child or youth he expects a conical stump, caused by continued growth of the bone, and adjusts his flaps accordingly, and abridges the bone.

Dr. Newman, referring to the case reported by Dr. Prewitt, said that in his observations he had seldom seen hepatic abscess complicating syphilis; but that protracted dysentery frequently resulted in abscess of the liver. He had met several patients who suspected they had syphilis, when they had not. Referring to one of Dr. Hodgen's cases, he said he was cautious in the use of chloroform; he used it in obsterics, where every few minutes the woman has a severe pain, and this pain probably antagonizes the effect of the chloroform. This suggestion might be beneficial, he thought, in cases of surgical anæsthesia. We inflict some severe pain and thus counteract the effects of the chloroform, in cases where death is threatened. Probably this suggestion had appeared in the *American Journal of Medical Science*, for 1873.

Dr. J. M. Scott, as an obstetrician, used chloroform in three cases out of every five of labor, with no bad results.

Dr. Montgomery did not think Dr. Newman's suggestion a good one. Surgical operations are as painful as childbirth. Toxæmia is the cause of death from chloroform—a change in the blood—too much carbonic acid in it. Very little chloroform should be given in parturition. He uses it sparingly, only during the agony of pain, in the second stage; but uses it in every case that does not object. It gives great relief and does not retard labor.

Dr. Dalton used chloroform in labor, but did not produce complete insensibility as in surgical anæsthesia. He indulged his patients to a small extent only. He feared post-partem hemorrhage if used freely. He related a case in which chloroform was used, followed by almost fatal hemorrhage. Spts. turpentine was his hæmostatic in this case, as in many others,

Dr. Hughes anticipated hemorrhage within four hours after any delivery. Post-partem hemorrhage occurs where no chloroform is used. He used chloroform largely in surgical operations during the war; with the insane, while in charge of the

State Insane Asylum; and in his obstetrical practice. He did not prolong its use until the involuntary nerve-centers become involved.

Society adjourned.

CLAYTON KEITH, M. D., *Recording Sec'y.*

Reviews and Bibliographical Notices.

THE SPHYGMOGRAPH: Its Physiological and Pathological Indications. The essay to which was awarded the Steven triennial prize by the College of Physicians and Surgeons, New York, 1873. Two hundred and ninety illustrations. By Edgar Holden, A. M., M. D. Philadelphia: Lindsay and Blakiston. pp. 169, 8vo.

The subject of Sphygmography has, as yet, not attained that popularity and general applicability which those who first investigated the subject had hoped. The subject is indeed vast; and the author of the book before us "judiciously expresses" in his *introductory note* that "the reader is desired not to consider the tracings of cases as the universal and invariable exponents of individual diseases." Such could only be obtained after long continued labor in every variety and phase of disease.

The work shows a great amount of labor on the part of its author, and an interest which a true love of science can inspire.

The author claims to have so far perfected the instrument by simplification, as to have reduced the cost, and to have made it more readily applicable than those in use heretofore.

Also, the impulse conveyed to the instrument is by the expansion of the vessel, rather than its mere elevation, the portion receiving the impulse partially surrounding the vessel.

The *pathological* variations of the pulse are mentioned with some of their indications. "Thus changes *in frequency* may indicate the wide departure from health of cerebral disease or

excessive fever, or the steady sapping of vital energy in any constitutional disease, when, as expressed by Latham, it has engaged the nervous system perilously. *Quickness*, as distinct from *frequency*, assumes a new signification, as in phthisis or inflammatory fever, or the impaired and irritable heart of dissipation, or excessive use of tobacco. *Volume*, in a pathological sense, becomes the index of cerebral compression, of blood poisoning, of hypertrophy, or the loss of contractile tone of the artery itself." p. 35.

Rhythm, strength, tension, in combination with their general indications, are briefly considered.

Translations of Tracings.—The different portions of the tracings which have significance are called "*the events* of the tracing;" and are four in number:

"*The first event* is the sudden, primary ascent, or shock-wave.

"*The second event* is the true systolic wave, or wave of filling of the vessel with blood.

"*The third event* is the diastolic collapse, or descending wave, the line permitted by the emptying of the artery.

"*The fourth event* has generally been considered the diastolic expansion or recurrent wave—the wave of dicrotism."

Further explanation of the different *events* of the tracings would perhaps not be of much value in this place without a copy of the tracings for reference.

We may here state that in the original essay there were one thousand tracings, selected from among several thousands; there are here, selected, two hundred and seventy-five, having reference to the practical application of the instrument. And in speaking of the great number of observations the author says, page 89, "The whole practical value of the sphygmograph can, in fact, only be ascertained by the completion of a dictionary, to which each individual tracing can be referred for interpretation, and towards this object these tracings are a contribution."

Action of certain medicines upon a healthy pulse.—In these experiments it was designed to observe the commencement, progress and decline of the physiological effect of certain medicines on the pulse. Four drugs were chosen, of known purity and freshness, namely: Cannabis indica, gelseminum sempervirens, aconitum napellus, and quinæ sulphas.

The action of the first is given in detail comprising thirteen pages besides the tracings.

"In the last experiment detailed, in which a fresh alcoholic extract of cannabis indica was again used, the following facts were noticed: 1st. Tracings abnormal from malaise at the beginning became normal in forty minutes, with marked sedation and diminished frequency. In fifty-five minutes began the stage of exhilaration, at which a large dose was taken. After fifty-five minutes the heart's impulsive power was evidently weakened, and shortly after began a vacillation both of equilibrium of pressure and frequency. In one hour and forty-five minutes, the nervous system was broken down by the excitement of reaction, a state lasting for twelve hours." p. 148.

Gelseminum. Tilden's *fluid extract* was used in the experiment. The results are interesting in view of the somewhat doubtful position which gelseminum has attained with the profession. The author's experience with this drug "has been favorable in puerperal eclampsia and the convulsive disorders of children, the neuralgic and congestive affections of the uterus or ovaries, and particularly in cardiac and pulmonary diseases where sedation and reduction of frequency of pulse have been desired." The sphygmograph, in this case as in many others, showed the action of the remedy long before the exhibition of any sensible or physiological effect. p. 151.

A dose of six drops was taken at 9 p. m.; at 9:30, six drops more; and at 10 o'clock, ten drops. "The last dose exhibited its influence in the tracing in thirty minutes, by *increased arterial tension and nervous stimulation, followed, however, in five minutes by diminution of both and great decrease in frequency.*" At 10:55 p. m. there was a peculiar slowness of respiration—7 to the minute. The conclusion is, "the simple deduction from this investigation, apart from what is already known of the remedy, lies in this—that while reducing the frequency of the pulse, it does so with an *increase of arterial tension,* and after a while impairment of the heart's action, indicating a toxic influence upon the nervous system."

Aconite. The first experiment was on a young lady, 18 years of age, perfectly well. She took four drops of the *fluid* extract, namely, one drop at 1:50 p. m., one at 2:20, and two at 2:45. The last dose of two drops showed itself in *twenty minutes,* in-

stead of twenty-five as with the first; and in *thirty minutes* the pulse writing was almost a straight line, and thus exhibited the maximum effect of the remedy in a *minimum of tension, force, frequency and complete disappearance of all evidences of nervous or other excitement, the first appearance of any sensible effect occurred in a simple dizziness upon exertion.*

The next experiment was on himself, and he sums up as follows: "The deduction from these experiments is of special interest, and we may compare it with a degree of certainty eminently satisfactory with that of gelseminum. Leaving out all other considerations, we have this one fact apparent, that aconite unlike gelseminum, while primarily showing a stage of excitement, yet reduces the heart's action as to frequency of beat *without increasing arterial tension.* The application of this fact to pathology will be evident."

Quinine. "The deductions from this experiment, aside from what is already familiar, in conjunction with the action of quinine, relate chiefly to the influence upon the frequency of the pulse and the state of the nervous system, the effect of large and small doses, and the moment at which their action begins."

We do not regard this experiment as sufficient for a remedy of so much importance as quinine, hence do not give the rather meagre details. These experiments are interesting and should be extended.

The work is a valuable contribution to the subject of Sphygmography, and reflects great credit on the author for perseverance and industry in a hitherto but partially explored field.

The mechanical execution of the work is almost faultless.

THE PUERPERAL DISEASES. Clinical lectures delivered at Bellevue Hospital by Fordyce Barker, M. D., Clinical Professor of Midwifery and the diseases of women in the Bellevue Hospital, etc. New York: Appleton & Co., 1874. pp. 512, 8vo.

Prof. Barker deserves the thanks of the profession for having given us this work—for having finally covered this much neglected ground which the obstetrician as well as the clinical teacher usually avoids. Works on puerperal diseases have lately appeared in France and Germany by Hervieux and Winkel. The book now before us is, however, the first upon the subject in the English language, a most necessary and at the same time a most valuable one, as the author

gives us the result of his own careful and extensive clinical observation; it is an eminently practical book, the important points of etiology, symptomatology, and therapeutics, being distinctly placed before the reader; and to make them more forcible, one or more characteristic cases precede the discussion of each topic.

Prof. Barker is thoroughly acquainted with the foreign literature upon his subject, which is not true of all our authors, and makes frequent references.

To some still doubtful points, such as albuminuria, puerperal fever, etc., he devotes much space, stating the leading theories of the day and candidly discussing them. We see from the very first chapters that our author has in a great measure freed himself from the routine treatment of puerperal women, and unless we have too great a veneration for antiquity, his sound common-sense teachings will be followed.

Thus in Lecture II, on the Diet of Puerperal Women, he tells us that the puerperal period does not require an abstemious diet—gruel tea and toast; involution and lactation are not furthered by depriving the system of its accustomed alimentation. Since he has regulated the diet by the appetite and the general condition of the woman, he has much less frequently met those annoying and troublesome nervous phenomena that so commonly follow parturition, and the function of lactation is usually established without that disturbance called milk fever, which was formerly so common.

The routine practice of giving castor-oil on the second or third day must be done away with; we must wait for some indication of the necessity of a laxative before giving one, and then an enema of warm water and Castile soap is more in place, but as some women object to this, he gives aloes contrary to the usual custom, and deems this the most advantageous remedy, especially if piles threaten. In one point, however, he follows good old custom too closely, and that is the binder, which is no more a necessity in every case than castor-oil or gruel tea, and can be as well dispensed with in most cases.

Lecture V is on Puerperal Albuminuria, Lectures VI and VII on Puerperal Convulsions; two subjects which the author distinctly separates.

1. Convulsions may exist without albuminuria and without lesion of the kidneys.

2. Marked albuminuria may exist without convulsions.

3. Frequently albuminuria does not appear until after the convulsions.

After stating the various theories with regard to the causes of puerperal convulsions, prominent among which are those of Rosenstein, Frerichs, Hicks, who look to the vascular system, and Frankenhäuser, who takes the nervous system to be the starting point, we are told that as yet nothing definite is known and that the author seeks the cause of puerperal convulsions in albuminuria, hydræmia, anæmia, and primiparity, perhaps in hereditary (nervous) and atmospheric influences—not well stated. A prophylactic treatment is frequently successful if undertaken in time; during the attack venesection, brisk purgatives, chloroform inhalations, and morphine hypodermically—the latter, Prof. Barker tells us, should never be used during labor, the very time when it is doubly useful, though unfortunately its advantages under these circumstances are not generally known. Chloral hydrate did not prove very serviceable, yet, being an antidote to strychnine, it is theoretically indicated, if the author's idea be true that spinal irritation frequently causes convulsions.

Great stress is justly laid upon the vicarious action of the bowels when the renal functions are suspended, but not a word is said of vicarious action of the skin, and its high therapeutic importance. Speaking of puerperal mania (Lect. X) the author battles against the loose use of the term, but himself makes rather an unfortunate division of the subject based upon the time of its appearance.

Hereditary tendencies and dystocia predispose, mental emotions constitute the most frequent exciting cause. Treatment: tonics, never bleeding, chloral far preferable to opium or chloroform, as the sleep it produces is neither preceded nor followed by cerebral excitement.

Phlegmasia alba dolens (Lect. XII) is distinctly separated from phlebitis, and associated with a disease of the blood which the author calls Inopexia, abnormal tendency to coagulation; the most uniform lesion in phlegmasia, we know to be venous thrombosis, yet of the real nature of the disease we are still ignorant.

The treatment prescribed is excellent, the local applications however appear somewhat hazardous; though the author denies that friction of the limb can cause embolism which he takes to be a very rare occurrence after phlegmasia, yet in his lecture (XIII) on Puerperal Thrombosis and Embolism (p. 262) he cites a case in which the phlegmasia had almost disappeared and yet premature motion of the limb brought about pulmonary embolism and death.

Lecture XIV, Puerperal Phlebitis.

Lecture XV, Puerperal Metritis.

Lecture XVI, Puerperal Peritonitis.

Lecture XVII, Pelvic Peritonitis and Cellulitis.

Lecture XVIII, Puerperal Septicæmia and Pyæmia.

Lectures XIX and XX, Puerperal Fever.

The last six lectures treat, I may say, upon the most important topics; they are most ably written, with a full comprehension of the conflicting theories, but unfortunately, the author, by his excellent knowledge of the pathology of the diseases, has been led into an error which should be carefully guarded against, namely, that of making the clinical classifications in accordance with the classifications of pathological anatomy.

We can not treat of puerperal phlebitis, more strictly metrophlebitis, or of puerperal peritonitis, for they never exist as such, uncomplicated; and the differential diagnosis by which the author endeavors to establish them is somewhat artificial. We might as well speak of puerperal scarlet fever, as to speak of puerperal peritonitis, pure and uncomplicated. Puerperal fever he distinctly upholds as a fever peculiar to puerperal women, with essential symptoms, and not the consequence of any local lesion, but caused by epidemic influences, contagion, infection or nosocomial malaria.

The rules laid for the treatment of these diseases are excellent throughout; we however miss the cold applications to the abdomen, which are invaluable in many inflammatory affections of the pelvic organs and the peritoneum.

Notwithstanding that we are found to differ with the author in some points, we regard Prof. Barker's work on Puerperal Diseases as a most valuable addition to our medical library, and heartily recommend it to the practitioner. G. J. E.

THE LEPROUS DISEASES OF THE EYE, with colored plates. By Dr. Ole B. Bull, member of the Norwegian Medical Society, etc., and by Dr. G. A. Hansen, physician to the Leprosy-Hospitals at Bergen, Christiania: A. Cammermeyer, Publisher. 1873. 8vo. pp. 27.

This pamphlet contains the results of an interesting study of certain special affections of the eye occurring in connection with the Leprosy of Norway (*Spedalskhed*). As "Proper Leprous Diseases of the Eye," are described a superficial obscuration, advancing slowly from the limbus toward the centre of the cornea, but generally sparing the central region; a tuberous growth, on or in the cornea, often causing blindness; iritis, attributable to the leprous dyscrasia; tuber of the iris, removable by iridectomy; and a peripheral retinal affection, probably the secondary to the affections of the iris and ciliary region..

Besides these leprous affections of the eye, a partial paralysis of the facial nerve is of very frequent occurrence. The consequent paralysis of the orbicularis palpebranum muscle is often most conspicuous either at the nasal or temporal end of the muscular fibres; in the former case the usual operation for tarsoraphy does but little good, and it is recommended instead to sew up this inner canthus as far as the lachrymal puncta.

J. G.

BOOKS AND PAMPHLETS RECEIVED.

PHARMACOPŒIA GERMANICA. The German Pharmacopœia, translated by C. L. Lochman, with an appendix. Philadelphia: David D. Elder & Co. 1873.

(For Sale by Gray, Baker & Co.)

LECTURES ON THE CLINICAL USES OF ELECTRICITY, Delivered in University College Hospital. By I. Russell Reynolds, M. D., F. R. S. Second edition. Philadelphia: Lindsay & Blakiston. 1873.

[For Sale by the St. Louis Book & News Co.]

GALVANO-THERAPEUTICS. A Revised Reprint of a Report made to the Illinois State Medical Society. By David Prince, M. D. Philadelphia: Lindsay & Blakiston. 1873.

THE PHYSICIAN'S DOSE AND SYMPTOM BOOK, containing the Doses and Uses of all the Principal Articles of the Materia Medica, and Officinal Preparations. By Joseph H. Wythes, A. M., M. D. Eleventh edition, revised. Philadelphia: Lindsay & Blakiston. 1874.

[For Sale by the St. Louis Book & News Co.]

DICTIONARY OF ELEVATIONS AND CLIMATIC REGISTER OF THE UNITED STATES, the Latitude, Mean Annual Temperature, and the Total Annual Rain-fall of many Localities; with a brief Introduction on the Orographic and other Physical Peculiarities of North America. By J. M. Toner, M. D., New York. Dr. Van Nostrand, Publisher, 27 Warren st. 1874.

SECOND BIENNIAL REPORT OF THE STATE BOARD OF HEALTH OF CALIFORNIA, for the years 1871-72-73. Sacramento, Cal., 1873.

KATY DID, AND KATY DIDN'T. An inquiry concerning priority in the Ligation of the Internal Carotid Artery. By William K. Bowling, M. D., Nashville, Tenn. 1874.

A TREATISE ON THERAPEUTICS, comprising Materia Medica and Toxicology, with Especial Reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. Wood, Jr., M. D. Philadelphia: J. B. Lippincott & Co. 1874.

[For Sale by the St. Louis Book & News Co.]

THE BONDED DEBT OF MISSOURI. Report of the Fund Commissioners showing the Present Condition of the Bonded Debt and of the State Interest and Sinking Fund. January, 1874.

ANNUAL REPORT OF THE SUPERINTENDENT AND STEWARD OF THE ST. LOUIS COUNTY INSANE ASYLUM. 1873. St. Louis, Mo.

A MANUAL OF TOXICOLOGY, Including the Nature, Properties, Effects and Means of Detection of Poisons, more especially in their Medico-Legal Relations. By John J. Reese, M. D., Philadelphia: J. B. Lippincott & Co., 1874. 8vo. pp. 507.

For Sale by the St. Louis Book & News Co.

CONTRIBUTIONS TO THE STUDY OF YELLOW FEVER. By J. M. Toner, M. D., and J. M. Woodworth M. D. Marine Hospital Service, United States. Washington, 1874.

Editorial.

OUR COUNTY INSANE ASYLUM.

The recent action of the St. Louis County Court, in abolishing the office of Superintendent of the County Insane Asylum, and leaving the Institution, with some three hundred inmates in charge of an assistant physician of limited experience, and a steward, employing a physician to visit the Institution some *two or three times a week* and prescribe; is so much at variance with the established principles of conducting a large insane asylum, that it has occasioned the deepest solicitude for the present inmates of the institution, as well as the fair fame of the city and county in the conduct of public charities.

In proof of the foregoing, we beg to refer the reader to the resolution on this subject, passed by *unanimous vote* at the meeting of the Association of Medical Superintendents, May 1852, and *re-affirmed* at their meeting in 1871. It reads as follows—"The physician should be the Superintendent and the chief executive officer of the establishment. Besides being a well educated physician, he should possess the mental, physical, and social qualities to fit him for the post. He should serve during good behavior, reside on or very near the premises, and his compensation should be so liberal, as to enable him to devote his whole time and energies to the welfare of the hospital. He should nominate on the board suitable persons to act as assistant physician, steward and matron. He should have the entire control of the medical, moral, and dietetic treatment of the patients, the unrestricted power of the appointmen, and discharge of all persons engaged in their care, and should exercise a general supervision and direction of every department of the institution."

Dr. A. McFarland* in charge of *Oak Lawn Retreat*, at Jacksonville, Ills., in a recent letter to us on the subject remarks: "In regard to the almost unheard-of monstrosity set on foot by your

*A. McFarland, M. D., LL.D., formerly President of the American Association of Superintendents of Hospitals for the Insane.

county authorities, of attempting to manage humanely a large institution for the insane with no responsible head—for that seems about what it amounts to—the error is so surely fatal as to bring certain disaster to the institution itself, and cover with confusion all instrumental in such a wrong to every principle of expediency, to say nothing of its inhumanity. But I have found that, on the question of the management of the insane, when it is up before legislators or municipal authorities, any voice from one with experience on the subject is hooted down at once, as selfish and interested.

"The originators of so strange a measure seem to have the idea that the duty of the physician to such an institution, is merely to examine patients and give medicine, *when this is the very least among his responsibilities.* He has got to be a man of established reputation, and character for science and ability, to stand at his back when accidents happen—as they always will in an institution of such peculiar liabilities. He must be on the ground all the time, with an undivided attention to his duty, and, if he is absent, even for an hour, some professional second must take the helm. He must be the ever-present point of authority; imparting his own intelligence and spirit to the organization about him; keeping a vigilant eye upon all the discipline regulating all engaged; directing employments, amusements, and the whole round of daily life on which the order, the well-doing, and success of the institution in every sense depends. He must be a man of that calibre that will insure obedience and respect among his subordinates, and inspire confidence among the multitudes who approach him on the peculiar business of his charge.

"Whoever is content with anything less than this standard of ability, in the control of an insane asylum, will very soon have to put up with evils certain to bring lasting reproach on any State or city that lowers such a standard. The result would be inevitable."

We do not understand that the court adopts the plan of a visiting physician as an improvement on a competent superintendent's entire and undivided attention, but as a more economical arrangement, to save the difference of salary between a good and competent man's entire services and one who divides his time with another institution of the kind (St. Vincent's Hos-

pital), besides his private practice in the city, etc. We are not informed exactly what the saving in salary is, but say from fifteen hundred to two thousand dollars. If the entire services, the undivided attention of an experienced physician would be better, it is, because a larger per cent. of *acute cases* would thereby recover, and be discharged instead of remaining a permanent county charge; then if but five or six more patients are restored and discharged from the institution yearly (and who would estimate the number less in an institution of three hundred), the saving to the county, in reducing the number to be supported, would be greater than the saving in salary, say nothing of other and, vastly more important considerations. In the light of these facts what becomes of the plea of economy? The court in putting forth this plea must indeed have placed a low estimate on the public intelligence. Again, this is exactly the manner of conducting an ordinary hospital for the sick who are *not insane.* If there is no material difference between the insane and those who are not insane, then the court is right in dismissing the superintendent and leaving the institution in charge of a young assistant physician, and steward.

Seriously to argue this question at this day, would only be equaled in absurdity, by advocating the abolition of the *engineer,* to give the train in charge of an inexperienced apprentice. Superior wisdom and experience in the application of steam power to the safe conduct of the varied interests dependent thereon, or a skillful and experienced pilot to guide the ship through unseen perils, is not more needed than a wise and skillful superintendent at the helm of the Insane Asylum, to secure its safe and successful conduct—we mean no reflection on the *assistant* employed at the institution; if the best man in existence he cannot remedy the defect in organization by division of authority. So directly retrograde is this step of the county court in leaving this institution without a competent superintendent, that but one more step in the same direction is needed to place the maniacal back at their homes to be, as formerly, *chained to the walls of a solitary out-house.*

To assume that an insane asylum can be conducted on the same plan and with like attendance as an ordinary hospital for the sick, is to ignore the most patent facts and to stultify reason; it is much easier to believe the county court moved

to this extraordinary measure by other considerations than *economy*.

Whatever the consideration, we cannot forbear as journalists, to record our most earnest protest, and appeal to the members of the medical profession, and to all humane, and philanthropic citizens, to exert themselves to rescue this noble charity from its present dangers, and restore it to its former rank with the best conducted institutions of the kind in the country.

CORRECTION.

Abortion.—In the February number of *The Chicago Medical Journal* we find the following: "Dr. Pallen (*St. Louis Medical and Surgical Journal*, October, 1873), advises the induction of abortion to relieve excessive vomiting in pregnancy. He has performed it five times, under certain conditions, and *the patients all died.* Such an experience must be a pleasing retrospect in a physician's life."

Now what are the facts as set forth by Dr. Pallen? The case reported by him in the September number of this JOURNAL, did well. "About forty-eight hours after the operation, fœtus and secundines came away, and she made a rapid recovery." We now give the paragraph entire from the October number in which *five cases* are spoken of.

"The rules which guide me are these: if she cannot retain anything on her stomach whatever, vomiting up even cold water; if she is daily losing flesh, showing that she really does not retain any portion of the food taken, and all the known remedies in such cases have been tried and found inefficient; if there be insomnia and restlessness, and if the pulse is under one hundred, then the operation ought to be performed. But if the pulse is one hundred and twenty or more, and there are tinnitus aurium, delirium, and dimness of vision, it is too late to perform the operation—she will die. I have done it five times at the request of others, but every one of them, as I anticipated, died."

We regard the testimony of such men as the aged and experienced Dr. M. M. Pallen, as very valuable. Our readers must judge of the wisdom of the advice given by Dr. Pallen; and also of the justice or injustice of the criticism of our neighbor of the *Chicago Medical Journal*.

ST. LOUIS MEDICAL COLLEGE.

The thirty-second annual commencement was held on the 12th of March, at the Temple. Mr. Charles M. Litton delivered the opening address in behalf of the students: when the degree of Doctor of Medicine was conferred on fifty-four young gentlemen, the *Ad Eundum* degree on six others.

Dr. J. J. McDowell delivered the valedictory address. The exercises were highly appropriate to the occasion.

ALUMNI ASSOCIATION OF THE ST. LOUIS MEDICAL COLLEGE.

The Alumni Association of the St. Louis Medical College, held a special meeting on March 12th, 1874, at the College Hall. Dr. Carter, of Holden, Mo., read an interesting paper on *Life*, also Dr. Hughes read an essay on Insanity; after which the meeting adjourned until the time of the regular meeting on the 13th, when the following officers were elected for the ensuing year: C. H. Hughes, President, W. B. Outton, Vice President, Clayton Keith, Recording Secretary, Wm. N. Brennen, Corresponding Secretary, H. H. Mudd, Treasurer, J. N. Love, Librarian.

The Association resolved to offer a prize of *fifty dollars*, or its equivalent, for the best essay on any medical subject, to be awarded at the annual meeting in March, 1875. The essays to be sent to the President under seal, in the ordinary way, on or before February, 1875. Committee on Prize Essay, Drs. C. H. Hughes, J. B. Johnson, F. V. L. Brockaw, John T. Hodgen, G. Baumgarten, Committee on Publication, Arrangements, etc., Drs. W. B. Outton, C. V. F. Ludwig, H. H. Mudd.

All of the Alumni are earnestly requested to co-operate in the scientific, fraternal, and social aims, of the Association.

LINTON DISTRICT MEDICAL SOCIETY.

The Linton District Medical Society meets at Louisiana, Mo., on Tuesday, the 7th of April. A large attendance is expected.

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

FEBRUARY, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	26.0	31.5	18	26.5	40.0
2	26.5	33.0	19	33.0	52.0
3	23.5	34.5	20	35.5	40.5
4	29.0	32.0	21	38.5	42.5
5	25.5	35.5	22	33.5	39.0
6	31.5	37.0	23	19.0	30.0
7	25.5	36.0	24	13.5	32.0
8	27.0	42.5	25	24.5	33.0
9	23.0	36.5	26	23.0	46.5
10	25.5	50.5	27	28.0	39.0
11	38.0	57.0	28	34.0	43.0
12	46.0	60.0	29		
13	28.0	33.5	30		
14	25.0	46.0	31		
15	55.5	61.5			
16	32.0	48.0	Means	28.9	41.0
17	32.0	34.5	Monthly Mean 34.9		

Quantity of rain: 2.73 inches.
" snow: 0.44 "

3.17 inches.

ANNUAL COMMENCEMENT OF THE MISSOURI MEDICAL COLLEGE.

The annual commencement of the Missouri Medical College was held at the Temple on the 11th of March. The degree of Doctor of Medicine was conferred on *thirty-nine* young gentlemen, and the *Ad Eundem* degree on eight others, after which Dr. J. K. Bauduy delivered the valedictory address to an appreciative audience of friends of the Institution and young graduates. No meeting of the Alumni this year, so far as we know.

THE MEDICAL SOCIETY OF CENTRAL MISSOURI.

We are in receipt of the Constitution and By-Laws of this organization, from which we learn that a semi-annual meeting will take place on Thursday, the 23rd of April, at Jefferson City, Mo. A cordial and earnest invitation to attend their meeetings is extended to all regular members of the profession in the vicinity.

Mortality Report.

CITY OF ST. LOUIS.

FROM FEB. 21st, 1874, TO MAR. 21st, 1874, INCLUS.

AGES.

Under 5 years.....	166	30 to 40.....	37	70 to 80.....	10
5 to 10.....	15	40 to 50.....	33	80 to 90.....	3
10 to 20.....	17	50 to 60.....	38	90 to 100.....	2
20 to 30.....	34	60 to 70.....	35	Over 100.....	1

Alcoholism.....	1	Convulsions	34	Fever, congestive ...	1	Obtrusion of Bowels.	1
Abscess	2	Croup.....	5	Fungus umbilicus...	1	Old Age.....	3
Accident.....	4	Child Birth.....	1	Heart Disease.....	1	Overdose Chloral...	1
Asthenia	1	Chill, conges.....	1	Heart—hypertrophy	1	Paralysis.....	1
Anemia	1	Diptheria.....	5	" Paralysis.....	1	Pneumonia.....	49
Angina Pectoris....	1	Debility	9	" Valv. disease.	2	Puerperal Convuls..	1
Aneurism.....	2	Dysentery.....	6	Hemorrhage.....	2	Rheumatism.....	2
Arachnitis.....	1	Dropsy.....	4	Hepatitis.....	5	Stomatitis.....	1
Apoplexy.....	1	Eclampsia	4	Hydrocephalus.....	2	Small Pox.....	13
Apthæ.....	1	EndoCarditis.....	2	Hematemesis.....	1	Syphilis	1
Albuminuria	2	Enteritis.....	2	Inanition	6	Tetanus,.....	11
Brain, Conges. of....	8	Erysipelas.....	5	Inflammat'n Bowels.	1	Unknown.....	6
" Softening of..	3	Embolism	2	Lungs, Inflam. of...	1	Whooping Cough...	3
" Concussion of.	1	Fever, puerperalis...	2	Marasmus	20		
Bronchitis.....	15	" typhoid.....	14	Meningitis	7	Total.....	340
Bright's Disease....	4	" scarlet.....	2	Mening. cereb-spin..	6		
Consumption.....	41	" hectic.....	1	Metritis, Puerp.....	1	Stillborn.....	51

COLLEGE OF PHYSICIANS AND SURGEONS, KEOKUK, IOWA.

The commencement exercises of the twenty-eighth session were held February 17th, 1874, in the College Hall, on which occasion the degree of Doctor of Medicine was conferred on forty gentlemen, and the Honorary degree on G. W. Crawford, and G. H. Griswell, of Iowa, and Robert B. Smeed, of Texas. The valedictory address by E. Loyd Howard.

The spring and summer session of this college opened on Monday, the 2nd day of March, and continues sixteen weeks—six lectures a day. Fees and requirements for graduation the same as for the winter course.

MISSOURI MEDICAL ASSOCIATION.

The annual meeting of the Missouri Medical Association will convene in Sedalia, April 21st, 1874.

The Committee of Arrangements have secured commutation of fare upon all roads in the State except the Iron Mountain. Delegates paying full fare to Sedalia will be returned for one-fifth, upon certificate of the Secretary.

Parties arriving will report at Smith's Hall, Nos. 57 and 59 Main Street. By order of the Committee,

JNO. W. TRADER, M. D., *Chairman.*

THE SAINT LOUIS

Medical and Surgical Journal.

MAY, 1874.

Translation.

THE SURGICAL DILATATION OF THE NECK OF THE WOMB.

By PROF. R. OLSHAUSEN, of Halle.

(*Volkmann's Clinical Lectures.—Translated from the German by Dr. Henry Kirchner, St. Louis, Mo.*)

While technically this may be considered a very insignificant operation; to judge correctly as to the necessity for the operation, implies precise knowledge of the character of the pathological narrowing of the canal; the object of the permanent dilatation being to remedy a violent dysmenorrhœa, or sterility, or both, as it frequently happens that they coexist. Great care is needed to discriminate between mechanical dysmenorrhœa and those cases dependent on plethora of the organ, especially metritic or perimetritic affections or excessive menstrual congestions—there is also an ovarian dysmenorrhœa caused by chronic irritation of the ovaries, fortunately this last is least frequent as it is least amenable to therapeutics. Sometimes a nervous dysmenor-

rhœa is spoken of, but the differential diagnosis is not clear.

It is the mechanical dysmenorrhœa alone that interests us to-day. It is generally marked by an increase of pain until menstruation is fully established, and then quick subsidence, also by the spasmodic character of the pain based upon uterine contractions. All cases of this form do not come within range of the operation; rather the smaller number. It is generally at the inner os where the stenosis occurs, being in most cases caused by flexion of the uterus on its neck: which cases as a rule are best treated by simple dilatation, and the same rule obtains in sterility. Not all of the cases of flexion with stenosis of the internal os, causing sterility, demand the bloody dilatation, depending upon an abnormally small external os. Not only in undoubted pathologic narrowing of the external os, but also where an os appears of the normal virginal quality and size—for in what degree of smallness an os begins to become pathologic is difficult to say, seeing we are unable to measure in such small dimensions dilatable tubes—only in extreme cases can no doubt exist, as to the pathological narrowness when the os can hardly be felt by the finger and difficult to find by the sound, such cases are always pathologic, and dysmenorrhœa seldom wanting. A normal virginal os always admits a sound with a head three or four millimetres thick without opposition, but there are cases where such is the case and yet the orifice appears abnormally small to the exploring finger. If in such cases there exists an undoubted mechanical dysmenorrhœa with sterility, we may assume that a pathologic narrowness of the os exists and act accordingly, yet we may, where sterility is the therapeutic object, go a

step farther and venture with an operation in an apparently virginal os. It should always be remembered that neither the oral nor ocular examination reveal an anomaly to explain sterility, the possibility exists that an unknown cause conjoined with narrowness of the virginal os may hinder conception, which may be overcome by ditalation. No experienced gynæcologist today denies the fact that the dilatation of the os produced by the first birth, facilitates conception through life after, as it often occurs in quick succession after previous sterility of many years standing.

In the present state of our knowledge hardly any one will subscribe to the doctrine of West, brought forth fifteen years ago, that an os that admits a sound will be amply large to give admission to spermatozoa. Manifold experience has decided that this is not so. The sperma does not separate the parts like an introduced sound. How the sperma gets into the cavity of the uterus is not definitely determined, and by theoretical deduction nothing is gained at the present standpoint of the doctrine of generation. Pathology here is ahead of physiology, and to such a degree that physiologists will do well not to ignore the experience of pathologists. These latter assume in spite of all contradiction that the uterine orifice and the membrum virile in order to impregnate may not necessarily meet, but that they do in most cases, and you may consider it undoubted that such a contact favors conception. Against such assumption Lott lately brought proof, taken from comparative anatomy that appears weighty, yet we may ask—What justifies the assumption, that the act of generation in man conforms to that of the lower animals? There is a thorough difference in the act as to the bodily bear-

ing of the two individuals in all animals, as compared to man.

From the foregoing, gentlemen, you have seen what cases there are especially in which the surgical dilatation of the os uteri becomes necessary. They are cases of undoubted pathological narrowness of the orificium externum, as soon as it disposes to dysmenorrhœa of a higher degree, or to sterility, and for the sterility there cannot be found another cause. At the time of the operation no inflammatory complications must exist, especially no perimetritis, as the operation would be attended with more danger.

I will now introduce to you a case, that is especially suited to illustrate the foregoing and develop new points. The woman you now see is 29 years old—two and a half years married, and to this time sterile. She is of middle height, of strong frame, and nourished well. She suffered for some years, in a minor degree before her marriage, with moderate dysmenorrhœa. Some days before her menstruation she suffers from pain in the back, some hours before its appearance also pain in the abdomen; when the discharge appears the pains leave. She does not lie down when in pain, but avoids moving about much. The menstruation has always been scant, and ceases in two or three days. She does not complain of further disturbance. But it is not the moderate dysmenorrhœa that brings her here, but the desire for children. She has not conceived during her marriage of two and a half years. Menses never made a longer pause than normal, she had not aborted. The vaginal exploration shows a notably elongated and exquisitely conical portio vaginalis, of normal texture. The roof of vagina being of normal

height and having the normal form, we concluded that that there is no prolapsus uteri and apparent or real elongation of the portio vaginalis *dependent upon it.* An attempt to push the uterus upwards does therefore not shorten the portio vaginalis. At the lower, pretty small extremity of it you find the notably small os, but as yet presenting the transverse fissure. The direction of the os is plainly anterior instead of posterior and this is the consequence of an abnormal direction of the portio vaginalis anteriorly. You feel that the upper half of the portio vaginalis and its continuation, the supra vaginal part of the cervix have a direction corresponding to retroversion. The bimanual exploration, in which the hand is able to feel the fundus plainly, especially when the fingers are laid on the anterior roof of the vagina, shows that there is no retroversion, that the fundus is rather directed anterior and the anterior wall of the uterus is bent bow shaped. The sound shows us that its button passes the os externum with the aid of a slight pressure, and at the inner os is only found the usual resistance as in every virginal uterus and that its cavity is of normal length. At the site of the ovaries there is no pain and no anomaly observable. To palpate the ovaries themselves is impossible on account of the somewhat thick abdominal coverings. The moving of the uterus executed with the finger is painless.

According to this, we may assume that the abnormally small os externum, if even not stenosed to a high degree, is the cause of both the pain at menstruation and sterility. This last may also be conditioned by the form of the portio vaginalis, and to a moderate degree by the bending of the uterus. The long and definitely

conical form of the portio vaginalis, is often found in conjunction with abnormal smallness of the os, and both conditions usually hinder conception, when in any way definite. The os in such a condition, is not only decidedly small, but also round, which in our case is wanting, and in extreme cases of the kind it may become difficult to introduce even a small sound, because its button will glide past the conical point of the portio vaginalis. The other anomaly, which you may designate anteflexion, is only a somewhat higher degree of the normal anteflexion of the virginal uterus, and differs from the common pathologic form, in which the portio vaginalis and os have not a posterior direction, but look anteriorly, while the fundus also is directed anteriorly, but to a minor degree. The abnormal degree of concavity of the anterior wall of the uterus, in this case appears more dependent upon a flexion of the portio than upon a flexion of the body of the uterus.

This form of anteflexion is the least frequent, and is always a malformation, if even of puberty. So, it becomes comprehensive, that it generally is conjoined with other malformations—as such you have to accept the smallness of the os and the elongation of the portio vaginalis. This form of flexion is of no consequence to the patient, therefore no object for therapeutics. The treatment only has to do with the smallness of the os. If the elongation of the portio vaginalis was more prominent than it is in this case, the dilatation of the os would only give a doubtful result concerning sterility. In such a case it would be well to shorten the portio vaginalis in order to get a wide transversely fissured os. We will in this case try dilatation.

It is now thirty years since James Simpson first re-

commended and executed the bilateral incision. It is practiced to-day, more or less frequently, by all gynæcologists. On the whole, rather too frequently than too seldom.

Simpson used for the incision the hysterotome with narrow blade and long handle. Upon the handle is a spring with which you press the blade from its sheath, and a screw to adjust the width of the cutting edge. With the aid of a speculum, to-day mostly Sims', the guarded knife is carried up to the inner os, and after the edge is turned to the side of the cervix and by pressure upon the spring is made to project beyond its sheath, the instrument is withdrawn, and by this withdrawal makes the incision. In the same manner the other side is incised. The instrument of Simpson is still used by gynæcologists of note, although it has the objection that two applications are necessary. Others, for instance Martin, use a similar instrument with a double blade, after the fashion of the lithotome, and so incise both sides at the same time. These double hysterotomes have been improved in a very ingenious way, by which both blades project by simply pulling the instrument out of the cervical canal. Thus the instrument of Matthieu and that of Greenhalgh is constructed, but the latter has this advantage over the former, that the blades spread the more, the farther the instrument is pulled downwards. The incisions of both sides together form a triangle with its base below—you can, however, accomplish the same with the original instrument of Simpson, or modifications of the same, by first pressing slightly, and by degrees more strongly upon the spring, in bringing it down. I have used these instruments a great deal, and for a time exclusively,

but do not use them any more. As much as the conclusion seems justified that the mechanism of the hysterotome affords the greatest security, to make the incision accurately as long and as deep as intended, yet there is one circumstance left out of calculation, and which is of great importance, how the incision eventually turns out, that is the elasticity of the tissues, and dependent upon it the dilatability of the cervix. If the portio is of cartilaginous hardness, the incision would mostly be of the extent and depth intended. But the cervix yields to the pressure of the knife, and expands in breadth more or less. By this you will find that the knife partly incises more downwards, and not so deep as intended. After many repetitions of such experience, I prefer to incise with the knife recommended by Marion Sims, which on a long handle, has a knife three centimetres long, convex, with rounded point. The provision made by Sims, enabling to bend the knife on both sides, is useless. A knife in such a position entails the security of the incision. With the aid of Sims' speculum and a sharp hook, you fix the portio vaginalis; you introduce the knife into the cervix, and incise first one side and then the other, and on a level with the os you cut both sides entirely through, so that the external os presents a large transverse incision. The latter is unconditionally necessary in order that the operation be completely successful, and in addition, it is necessary to begin with the incision high enough up in the cervical canal, otherwise the external os, from its great tendency to re-unite, does not retain the necessary width in spite of the best conducted after-treatment. Without the incision reaching high enough up in the cervical canal, a proper gapping of the lower part cannot be ob-

tained. The difficulty of the operation is not the incision, which you will learn very soon after a little experience, *but solely to prevent re-union.* The tendency towards healing by first intention in the portio vaginalis, and the comparatively firm tissue, aids the accurate adaptation of the wound so that usually nothing can be felt any more of the incision after the lapse of forty-eight or even twenty-four hours, and only a firm pressure against the os opens it again.

These main difficulties of the operation, Simpson knew, who during the after-treatment, opened the incision with his fingers every second or third day, and later touched it with lunar caustic.

In order to keep the cut surfaces apart, among many other things were constructed dilators with springs, which were introduced, closed, and by their elasticity were to be retained in the incised cervix. I do not believe they were much employed except by their inventors. They were feared, and with justice, to cause too great irritation. Much more common is the use of laminaria or sponge tents in order to prevent too quick re-union of the wound and contraction of the canal.

But, gentlemen, I here caution you in the use of the sponge tent. The same has gained in latter times a great preference over laminaria in gynæcological practice, and it is of course a great advantage that they stay where introduced, while laminaria slips out of the cervical canal, and its employment, therefore, is often embarassing. But sponge tents have that great disadvantage that they adapt themselves closely to the mucous membrane, and adhere often so firmly that their withdrawal is almost never accomplished without lesions of the mucous membrane. By this fact they may cause

irritation or inflammation. Above all, sponge has the disadvantage of uncleanliness. A putrid smell almost instantly appears in sponge, which is not only disagreeable to the patient and physician, but brings along with it imminent danger.

The resorption of the decomposed secretion creates inflammation, or septicæmia even of a fatal character.

Literature only mentions solitary examples, it is true, and as I believe, because the dangers up to this time are too little known, and the deaths from it were not truly interpreted.

I am sorry that I have to confess two sad experiences, that bring the dangers of sponge tents into the proper light. One patient above thirty years suffered for a long time from profuse menstruation and intercurrent typical hemorrhage. The suspicion that there was an intra-uterine tumor or a lesion of its mucous membrane to cause the hemorrhage, induced me to dilate the cavity of the uterus. This was to be done thoroughly by sponge tents for three days, always increasing the size of the tents. The single tents were allowed to remain twenty-four hours or thereabouts; at the end of the third day a peritonitis diffusa was set up, accompanied by intense fever, ending fatally, under violent delirium and great prostration, so that from the symptoms, acute septicæmia could be assumed.

A second case was still more certain. In a patient forty years old, a sub-mucous fibroid tumor of the size of a child's head, that could be felt through the partly opened os, had caused considerable hemorrhage, and hence demanded the trial to get rid of it. For several days I dilated with sponge tents, incised thereupon the capsule of the fibroma and enucleated it to the

greatest extent. The complete enucleation was impossible at the time and was to be tried at a consecutive sitting. We did not get to this, however. The patient began to have intense fever, and died after two days—without peritonitis. The post-mortem revealed the absence of the latter. The fibroma was to the extent of the enucleation from its capsule, and even beyond it, in a state of pultaceous softening, and showed at the early post-mortem emphysematous crepitation. There was here in the fresh wound ample opportunity for resorption of the decomposed fluids, and in *this resorption, gentlemen, you may find the chief danger of the tent after incision of the cervix*—a fresh wound being present, that easily absorbs.

Do not misunderstand me and think that I wish the sponge tent banished from gynæcological practice. We use it often enough here in our clinic, especially to aid the discharge of placentar remnants after abortion, and for many other purposes, but it is necessary for you to know its dangers, *you must never use the sponge tents for days in succession, and never allow it to remain longer than ten hours*, which, also, Hewitt and Greenhalgh insist upon, and you must not use them at all where lesions of the mucous membrane of the cervical canal exist.

The danger of peri-uterine inflammation is, by the way, extensively known and often pointed out. Simpson already cautions you against sponge tents after the bilateral incision of the cervix. Scott holds the danger much greater than with laminaria. Above all, Greenhalgh mentions the danger of septicæmia. In literature you find noted many cases of fatal peritonitis after the use of sponge tents. Great caution, therefore, is absolutely necessary. The impregnation of the tent with

carbolic acid hinders the decomposition of the secretions very imperfectly, and does not, therefore, lessen the resulting danger.

After this digression, we will return to our subject. We have only to discuss the important question how we may best hinder the re-union of the wound without incurring new danger. I, myself, used to open the wound by the pressure of my finger during the first two days, and from the third day used the sound in order to keep open the upper part of the cervix where the fingers could not reach. Yet I do not consider this kind of treatment the best, believing that the repeated handling of the wound with the button of the sound is too irritating, and apt to set up inflammatory action, as I have repeatedly seen. Cauterization of the wound at once with liq. ferri sesquichlor., or with the actual cautery, has not this disadvantage, and acts best against too hasty healing. Eventually has the cautery to be repeated after the lapse of some days. I would prefer the red-hot iron, if it was not somewhat inconvenient in private practice. In case the incision should not happen to be deep and perfect enough, and you are hindered on account of the bleeding, to rectify this, you had better leave cauterization, and examine in a day or two the wound again with a speculum, and feel with a sound, in order to enlarge the incision when necessary. You cannot here easily regain what was neglected. The wound heals to a great extent in spite of all exertion, and the external os does not easily retain more than half the size it had immediately after the operation.

You have now learned, gentlemen, what cases they are as a rule that necessitate this small operation, and how to execute it. With this, however, not all indica-

tions for it, nor its technicality, is altogether exhausted.

On one patient you saw the abnormity of the portio vaginalis causing sterility, as a complication to the abnormally small os. There is another such complication which conditions the same, namely, anteversio uteri. In a normal os, especially in one of a woman who has had children, an outspoken anteversio is no lasting impediment, if even an apparent difficulty. But with only moderate narrowness of the os and anteversio combined, sterility is so very frequent, that here a connection is undoubted, and this fact is very important to the theory of fecundation. It supports the view that the sperma in the act of ejaculation at once gets into the cervix, and is not aspired by the os, being immersed in the same.

In the just named cases there is frequently no dysmenorrhœa of moment, because the external orifice is not always very narrow. Sometimes there is found with a normal os a plain mechanical dysmenorrhœa, depending upon this: that the posterior vaginal wall closes the os, which is resting upon it. An India rubber ring, or a similar instrument that lifts the portio vaginalis off the vaginal wall, suffices to cure the dysmenorrhœa, although only as long as the instrument is worn. Of both factors acting in common, namely, the anteversio and narrowness of the os, the former is never made a point of attack for therapeutics, for if even the anteverted uterus never stands immobile in the abnormal position, it can only be brought into a better position temporarily. The manual reposition only has a temporary effect, India rubber rings, eccentric pessaries, and the like, are of little or no use. The remedying of sterility must solely have an eye on the

os, dilate the same if even the narrowness is slight, or there be even a normal virginal os. But the usual bilateral incision is here seldom crowned with success. You must modify this operation, and incise the anterior lip of the os in its middle part, or rather excise a piece. The incision of the anterior lip is more difficult to keep open than the lateral, you can seldom increase the os by it. A cuneiform excision, however, whereby the point of the cut reaches near the insertion of the portio vaginalis, is as easy to keep open as it is to make the operation itself. Hereby you create a funnel-shaped opening that may be very apt for the reception of the glans penis. From my experience in this line, perhaps not very extensive, I believe that this modification deserves confidence, and the cases are not rare that would invite a trial.

As regards the surgical dilatation of the cervix, only little remains to be said. It is recommended, in cases of intense uterine catarrh of a virginal uterus, to dilate the narrow cervix in order to facilitate the exit of the secretions, and by it to do away with a considerable impediment to the cure of the catarrh. At the same time comes into consideration that every intra-uterine medication is much easier through a wide than through a narrow os. In both directions the indication is eminently rational, yet you must never underrate the danger of operative interference, and always reserve the operation for the worst cases of uterine catarrh. As last indication for the operation I must mention hemorrhages depending upon sub-mucous fibroma of the cervix, if they are profuse, and other remedies have no effect. This indication originated in England, and is especially defended there. In Germany only few have

adopted it, especially Spiegelberg. The theory of this hemorrhage nobody has as yet satisfactorily explained. Only very vague and improbable explanations have been given. It is in the highest degree questionable whether the successes gained up to this time were anything more than incidental. Hewett says, that to gain success, the whole cervix and the inner os must be incised. Since this time nothing has been said any more of this remedy against hemorrhage, and so this recommendation will go to sleep like many others.

A few words more on the incision of the inner os. Opportunity for incision offers often enough, if you desire to treat every stenosis in this way; for in the flexed uterus such a one is seldom wanting. Here a bilateral incision would be of no avail, as the flexion occurs over the anterior and posterior plane, and by this fact the canal is compressed antero-posteriously. An incision, however, through that wall where flexion takes place, so the anterior in anteflexions, as it appears most rational, would be very venturesome on account of the *atrophy by pressure of its walls.* Marion Sims has recommended, and many times executed the incision of the convex wall. The operation has to this time found only few friends, and I doubt that it will have a future. As a general rule, the incision of the inner os is abandoned. The operation appears much more dangerous than the incision of the cervix, it is frequently followed by hemorrhage and also by inflammation. The operation has only one eloquent advocate in addition to Sims and that is Greenhalgh.

The great desire in flexions, especially in anteflexions, to treat more successfully the often considerable stenosis of the inner os, than can be done in many cases

by the employment of the sound, tents or intra-uterine pessaries, perhaps will help an operation now known, or in future to be invented to general acknowledgment. For the present no method has gained it. But you may be convinced that the incision of the cervix is a therapeutic agent that we would not like to miss, and that it requires a careful execution and a careful after-treatment to gain the desired effect. At present, without a doubt, is the incision of the cervix practiced too freely, as it frequently happens with new modes of treatment, partly because the surety of success and its value is overrated, partly because the danger, the inflammation following thereon, is underrated. If even you can lessen this latter by the proper execution of the operation, where indicated and by the proper after-treatment—sometimes perimetritic processes will yet occur after incision of the cervix. If they are not fatal, they are tedious and injurious to health, and therefore deserve our whole attention, and demand of us not to execute this insignificant operation except after settled indications exist, and only when it promises success.

Original Communications.

TRICHINOSIS AND TRICHINIASIS.

By A. Wislizenus, M. D.

Since Owen in 1835 described first the *Trichina Spiralis* as an entozoon, found sometimes in the muscles of human bodies, and since about 1860 Virchow, Zencker, Leuckart, and others, discovered and proved by post-mortem examinations and feeding experiments its fatal connection with the human organism, the natural history of this microscopic nematoid has been so thoroughly explored that every physician now knows how trichinous disease originates in man. A trichinous piece of pork is eaten in a raw or half raw state, the trichinæ spirales develop themselves in the human stomach to generative action, become viviparous and procreate, in less than a week from their first introduction, an immense number of young brood, which perforate the intestinal canal and emigrate to their proper element into all the muscles of the human body, destroying them and feeding upon them until they are arrested, and after months of deadly work become encysted, to lie there for years in a semi-vital state, like the pupa of an insect, but to be resuscitated and to start a new generation whenever they are lodged again in the stomach of man or a fit animal.

Trichinous disease is fortunately in this country a rare disease, because most people cook or roast their pork well before eating it, and but a few, unacquainted

with the danger, indulge in raw sausage meat, raw ham, and half prepared pork in general. Many physicians have therefore never seen the disease in their practice, and the publication of such cases may not prove uninteresting to the profession. Having lately attended a family infected with the disease, I will now give the general outlines as well as the peculiarities of the different cases, without the tedious enumeration of slow daily changes and prescriptions.

The family concerned are Germans, old residents and living at the western end of the city on the Gravois Road. I have been their family physician for many years. They generally enjoyed good health, with the exception of occasional intermittent and remittent fevers, common in that neighborhood. On January 25th of this year, I was called out to see three sick children of the respective ages of eight, ten and twelve years. They had been ailing for about five days with symptoms of gastric catarrh, *i. e.*, nausea, want of appetite, coated tongue, light pain in bowels, diarrhœa, thirst, hot and dry skin, quick and feeble pulse, general feeling of prostration. The fever seemed to be rather continued than remittent. Upon inquiry I ascertained that the family a short time before had bought in Union Market a fine looking dressed hog, that they had cut it up and salted it, and that a small portion of it had been roasted and eaten by them just a week previous. They stated also, that a part of the meat had been rather rare, not sufficiently done. The three children took sick within the three following days. I suspected of course trichinosis; but three other children and three grown men who had eaten freely of it, remained perfectly well. It was strange also that the

three sick children were the only ones of the family who visited the neighboring school, where the cistern water, which they drank freely, was said to be very bad, and might have produced similar symptoms. To clear up all doubt, I took some small pieces of the salted pork with me for examination. The mother had given to each of the sick children in the beginning of the attack a dose of castor oil, and, considering the diarrhœa as an effort of nature to throw off something injurious, I prescribed to each of them a cathartic of calomel and rhubarb to be followed by castor oil.

Of the pieces of pork to be examined, I gave one to Dr. Engelmann, Jr., who found some unencysted trichinæ in it. In the other pieces I found them also but not in great numbers, none encysted, not all even coiled; some yet quite straight, others beginning to bend. The trichinosis of that hog was therefore constated as a recent infection, which gave a better prognosis for the sick children. During the first week of my attendance the condition of my patients continued about the same, except that their fever took a more remittent type (caused probably by some quinine I had given them), but the diarrhœa and the general prostration had increased; the tongue showed a dry, glossy redness, but was not parched as in typhoid fever. The spleen was not enlarged, no tenderness in the ileo-cœcal region, the sensorium was quite free; although restless at night they had no delirium—all symptoms sufficient to distinguish the disease from typhoid fever. The treatment during that week consisted in tonics, an occassional dose of castor oil, in the night sometimes a sedative; as nourishment beef-tea, milk, etc., but they cared more for water than food.

At the end of this week, or two weeks after the pork dinner, I got a fourth patient. The mother of the children, an elderly lady (in the period of involution), had been nursing them day and night, but was now obliged to take to her bed, with symptoms similar to those of her children: great prostration, fever with quick and feeble pulse, smooth and dry tongue, aversion to all food, great thirst, diarrhœa, and, what was most peculiar in her case, intense irritability of the stomach, frequent vomiting, and inability to retain anything for a length of time, not even ice or ice water with brandy. I considered her disease also as trichinosis, but she assured me that she had not touched or tasted any of that pork, that her appetite and digestion had been poor for some months, and that her disease could not have any connection with trichinæ. I became doubtful myself, and considered it possible that a mild trichinosis might be combined in her case with the beginning of an organic disease of the stomach. In anticipation I will state here, that the unsettled condition of her stomach lasted about a month, and that her prostration became quite alarming. I prescribed at first cathartics with calomel, then tonics and sedatives, with beef-tea and iced champagne, but after she retained food again and her appetite returned, the diarrhœa and prostration nevertheless continued for a long time, and even now, though walking about and convalescent, she has not recovered her full strength. It was also highly interesting to me to ascertain, several weeks after she was laid up, from her husband, that she had assisted in the cutting up of the hog, and that she had taken from a saw, used on that occasion, some small pieces of raw, lean meat, tasted them herself and

given small bits of it to the same three children who were first taken sick. When the circumstance was recalled to her mind she recollected it, but could not be induced to believe that a few mere fibres of meat could produce so terrible a disease. I, for my part, entertained no doubt that the riddle of the true origin of the disease had been solved by this trifling circumstance. That the smallest piece of raw trichinous meat is far more dangerous than in any other form, is self-evident.

Three weeks after that unfortunate pork meal the family hospital was increased by a fifth patient—a young man in their employ, of strong constitution but phlegmatic temper. For several days previous he had complained of great lassitude and pain in all his limbs. The most prominent symptom in his case was a general œdema, not only on the eyelids and in the face, but equally over the whole body. The swelling was neither so painful as in muscular rheumatism, nor were any of the joints affected as in acute rheumatism. He had never suffered from intermittent fever or any other disease to account for such a general swelling; his urine also was quite natural. Pulse was quick and feeble, tongue red and smooth, no appetite, but neither nausea nor diarrhœa. He had several times partaken of that roasted pork but remained well for nearly three weeks, when he was thus suddenly attacked. I could not help considering his case also a trichinous affection in a milder form. I gave him several times cathartic pills with calomel, followed by castor oil, afterwards tonics with stimulants and a generous diet, and in about a week he got up again, his œdema had

disappeared, his appetite returned, and in a week more he seemed to be quite restored.

My first patients, the three children, continued in the meantime their slow course towards recovery. With all of them diarrhœa was the most persistent and obstinate symptom; neither mild purgatives nor sedatives, tonics or astringents, seemed to exercise any decided effect upon it. After about a month the appetite returned—they became even greedy for food; they were allowed very nourishing diet and stimulants (brandy and red wines), but they were emaciated like skeletons, their pulse was normal in frequency but very feeble, and their feeling of prostration remained the same. When they walked a few steps they complained of pain in the calf of the leg, but when in bed they experienced no pain in any particular muscles. The œdema, that had been the prominent symptom in the young man, was not common to the rest. The youngest child only, the most prostrated, had about a month after the attack, for several weeks, a swelling of the eyelids and face, but none on the rest of the body.

In about two months the state of the family hospital was as follows: the young man had entirely recovered from his short attack; the mother was up and convalescent, appetite and digestion improved, strength slowly increasing, no more nausea or diarrhœa. The oldest child, a boy of twelve years, is also convalescent, has enormous appetite, drinks wine and beer, no more diarrhœa, his pulse is full again, but it will take him long to regain flesh and strength. The second child, a girl of ten, who was least affected, has recovered all her strength and looks as well as before. The youngest child, a girl of eight, who from the first was more severely

attacked, showed also signs of improvement which gave me hope of her ultimate recovery, but she experienced a relapse; diarrhœa and weakness increased again, bed-sores appeared, and, though her appetite was good, she became more and more emaciated and died from exhaustion on the 6th of April, eleven weeks after the commencement of her disease. It would have been very instructive to make in that case a thorough post-mortem examination of the intestinal canal, to ascertain if any young brood of trichinæ still lived there, what had become of the old generation, in what state the mucous membrane and glands were, if the thousands of perforations by the emigrating brood had produced local inflammation and ulceration, etc. But unfortunately I was informed too late of the child's death, and when I arrived there the next morning, the funeral was already so arranged that I obtained only a chance, with the permission of the father, to cut a small piece out of the calf of the leg from the musculus gastrocnemius for microscopic examination. I examined it immediately on returning home, and never before had I seen a trichinous muscle so saturated with trichinæ. With one glance one could easily perceive a crowd of twenty together, and in a small piece of the size of a pin's head I counted about a hundred. Calculations made of trichinæ living in one human body to the number of hundred thousands and even millions are therefore not imaginary. They appeared in all shapes and convolutions, some in the first beginning of bending, like a long stretched S with a hook at each end, others half bent, others circular or in regular spiral form, or in double convolutions like a "bretzel." Some seemed to be entirely free, others showed the

commencement of encysting, none were really yet encysted. Dr. Engelmann, Jr., to whom I gave a portion of the flesh, found some alive yet, and by putting them in a few drops of warm water (of blood heat) they exhibited very active motions.

Hospital Reports.

[Gynæcological Clinic of Prof. L. CHAS. BOISLINIERE, at the St. Louis Hospital: Reported by GEO. E. MCCOSH, M. D., Assistant to the Clinic.]

Case of severe Endometritis, Retroversion and Chronic Ovaritis.

Mrs. Mary K——, aged 28 years, born in the United States, and married seven years; came to the clinic May 15, 1873. Her history is that six years ago, she was delivered of a child at full term, but had never miscarried. She dates her illness from the birth of the child. After confinement she made a tolerably good recovery. Soon after getting about she began suffering from neuralgic pains in the lower part of the spinal column, pain down the inner side of the thighs (from irritation of the anterior crural nerve), ovaritis, especially of the left side, leucorrhœa and severe dysmenorrhœa commencing two days before the menstrual flow, and continuing till it ceased. The bowels were costive. Examination by touch showed the cervix pressed forward against the pubis; the cervical tissue harder than normal, a result of sub-acute inflammation. The body of the womb was felt low down in the hollow of the sacrum and very tender to the touch.

Patient being placed in position, Sims' speculum was introduced, and the cervix brought to view. The lips of the cervix are slightly eroded from pressing against the vesico-vaginal septum. On exploration with a probe, the instrument turns half way round, entering a retroverted uterus—the point of the probe

directed toward the hollow of the sacrum. Pressure on the instrument causes considerable pain at the fundus uteri. Diagnosis was severe endometritis and retroversion with cervical erosions, and chronic ovaritis. Finding that the uterus was free from adhesions, the retroversion was remedied by a Hodges' pessary, which is one of the best mechanical appliances for this malposition. The local treatment has been strong solutions of iodine and astringents, with large irrigations of water as hot as can be endured, twice or thrice daily. The constitutional treatment has been general tonics and small doses of saline cathartics to relieve the portal system and keep the bowels regular. This patient will soon be discharged cured. One interesting feature of the case is, that the endometritis has not subsided symmetrically, one part of the cavity healing faster than the others until now only a small segment of the cavity (say one-third), on the right side, is tender to the touch of the probe. The improvement has been regular but not rapid, as the patient is not a frequent attendant at the clinic.

Case of Ruptured Perineum, Rectocele, Cystocele, and Retroversion.

Mrs. Mary G——, aged 36 years, came to the clinic February 27, 1873. She is the mother of four children, but has never miscarried. The patient is very muscular. At the birth of her last child, five years ago, labor progressed very rapidly, and before any attendant arrived the baby was born. Since then she has suffered from pain in the back, ovarian neuralgia, with a dragging pain about the lower part of the abdomen, and leucorrhœa. Placing the patient in proper position, on examination found the perineum ruptured down to the spincter ani. On introducing Sims' speculum, rectocele and cystocele were recognized, quite blocking up the vagina. The cervix uteri was found pressed against the anterior vaginal wall, and extensively eroded. The probe turned half round after entering the cervix, and passed into the cavity of a retroverted uterus. The diagnosis was retroversion, from insufficient posterior vaginal support, because of the ruptured perineum, cystocele, rectocele, and cervical erosions resulting from the cervix impinging on the vesico-vaginal septum. Hodges' pessary relieved the displacement, and strong solutions of argenti nitras rapidly healed the erosions and relieved the leucorrhœa. Constitutional treatment,

saline purgations in small doses. January 20, 1874, Dr. E. H. Gregory operated for the ruptured perineum by freshening the edges of the cicatrix and passing deep quilled and interrupted superficial silver wire sutures. On the tenth day the sutures were carefully removed and union found complete. After waiting till the tissues were sufficiently consolidated, the patient was examined, and the uterus found in natural position, though the supporter had not been worn for some time. The patient was discharged cured.

Infantile Uterus and Amenorrhœa.

Mrs. Caroline M——, aged 22 years, born in Germany and married three years, came to the clinic April 3d, 1873. This patient at the age of sixteen years had her first and only catamenial flow, since that time the menstrual molimen has been regular but unattended by any flux. The molimen each month is marked by hypogastric pains; vesical and rectal temesmus, enlargement of the abdomen, and whitish discharges, though no leucorrhœa is present. The external genitals are normally developed and the mons covered with pudendal hairs. The mammæ are well-developed, and are swollen during the molimen, at which times the areola and tubercles around the nipples are as well marked as at the fifth month of pregnancy. Her sexual desires are strongest during the molimen. In person the patient is well-developed, with blonde complexion, blue eyes, and light brown hair. Examination with the speculum disclosed the uterus in normal relation to the vagina, and on passing a uterine probe the position was found to be correct, but the organ was only one and one-half inches in depth. Diagnosis, infantile uterus and amenorrhœa.

The treatment locally was application of strong solutions argenti nitras to the uterine cavity, hoping to excite a determination of blood to the part, as recommended by Sir Jas. Y. Simpson, also the electro-magnetic current to be passed through the womb and ovaries each alternate day. The constitutional treatment was aloetic purges both by the mouth and by injection into the bowels. This treatment was continued until July without any marked improvement, except relieving the severe ovaritis that had existed during the molimen. At one time the patient found a few drops of blood on her linen after holding

coitus at the period of the monthly exacerbation. The patient has ceased treatment.

Absence of the Uterus and Vicarious Menstruation.

Miss Annie N——, aged 20 years, born in England and unmarried, came to the clinic October 2d, 1873. The patient is of medium size, and blonde complexion. She says she never menstruated; but for three or four years has had a distinct menstrual molimen at intervals varying from four to six weeks. At these times she has had swelling of the abdomen and a feeling of uneasiness in the pelvic visceræ. Until lately has been subject to frequent attacks of epistaxis. Her bowels are regular, and general health good. Her mammary glands are but slightly developed and the external genitals almost infantile in development, with not a dozen pudendal hairs on the mons.

On conjoined manipulation found a vagina three or four inches long, guarded by a loose flabby hymen that readily dilated to admit the finger. The vagina ended in a blind cul-de-sac, no cervix uteri perceptible. Neither could a womb be found by palpation through the abdominal walls above the pubis, nor by an exploring finger introduced into the rectum. On introducing the speculum (Sim's), the vagina was found to be a cul-de-sac ending in the upper portion in a well-marked raphæ and a small tubercle, which is probably a rudimentary uterus. The diagnosis is, uterus entirely wanting. This patient also has hernia (probably ovarian) through the left inguinal canal.

No treatment recommended.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

St. Louis, February 28th, 1874.

Chloroform in Obstetrical Practice being under Consideration.

Dr. Dalton used chloroform sparingly during the second stage only of natural labor. He rarely met with a case of post partum hemorrhage in his practice before the introduction of chloroform. When he began the use of chloroform he used it to the extent of producing complete insensibility, as in surgical anæsthesia, following the advice of Dr. Simpson given in the *London Lancet*. His cases of post partum hemorrhage were soon increased five-fold. He thought experience, and not theory the most reliable criterion on this subject. He favored statistical reports from the members.

Dr. McPheeters did not give chloroform until complete anæsthesia was produced; in such an event he would expect post partum hemorrhage to ensue. Chloroform relaxes the muscular tissues, therefore hemorrhage might ensue.

Dr. Boisliniere related a fatal case occurring in his practice. Patient had sent to a drugstore and procured two pints of chloroform, without his knowledge or prescription, and inhaled that amount during the space of two days, for neuralgic pain. When he arrived he found her in a cyanosed condition—there was too much *carbonic acid* in the blood. He gave spts. ammonia, with the hope that it might combine with the carbonic acid in the blood and form the carbonate of ammonia, and in this form be eliminated. Patient revived and he left. She again inhaled chloroform despite the efforts of her friends. When he returned the child was delivered—the labor being natural—but was followed by alarming hemorrhage. Death ensued. He considered her death partly due to post partum hemorrhage, and partly to the venous condition of the blood,—both due to the excessive use of chloroform. She died just as a coal-miner dies from inhaling carbonic acid and carbonaceous matter in the

coal mine. Chloroform did not interrupt the labor pains nor suspend uterine contractions in this case.

The result of numerous experiments has proved that chloroform, which is sparingly soluble in the blood, travels through the circulation in considerable quantity, in an uncombined state. It having a strong affinity for oxygen, the ordinary chemical changes which normally take place in the blood are thereby materially interfered with, and Dr. Snow has shown that, in consequence of this, the quantity of carbonic acid evolved from the lungs is materially diminished. Such an effect, if of short duration, will probably produce no serious result upon the economy; but should the action be unduly protracted, as in the case above related, the effect may be a more or less complete appropriation by the chloroform of the oxygen of the blood, and the proportionate production of carbonic acid; in a word, a more or less complete state of venosity induced, and incompatible with life. Dr. McPheeters some years ago related the case of several persons who, after having been removed from the influence of carbonic acid gas to which they had been exposed for sometime, nevertheless died in one or two days from this excessive venous condition. I do not advance that this is the ordinary mode of death from the effects of chloroform—it generally kills by its direct action on the nerves of organic life;—but I contend that dangerous effects from this intoxication may endure after the withdrawal of the anæsthetic: I simply prove the great deterioration the blood has suffered during its protracted exhibition. So that chloroform may kill in two different ways.

The case above related proves that this state of venosity does not retard labor—but on the contrary seems to excite it—if we admit the results of the experiments of Brown-Séquard. He tied the trachea of pregnant animals, in which he had previously destroyed the lower portion of the spinal cord. The immediate result of the apnœa thus artificially induced, was the occurrence of uterine contractions, which disappeared on relaxing the ligature, and returned again on repeating the experiment. This is due, says the experimentor, to the contact of venous blood with the muscular fibres, the irritability of which is highly exalted during pregnancy. He explains the earliest uterine contractions on the same principle. The large size of the uterine sinuses insures the presence in the substance of the

uterus of a large quantity of venous blood, and, so soon as the muscular fibre reaches, at the termination of pregnancy, its highest point, both of irritability and of development, it becomes for the first time excited to contraction. The immediate result of this is to empty, in a great measure, the sinuses of blood, but so soon as the rhythmical relaxation occurs, the venous blood again gains access to the irritable fibres, and anew excites them to contraction. I do not wish, however, to be understood to say that venous blood is the sole factor in causing uterine contractions, but that it is one of the factors producing labor. The others are of reflex origin.

He favored the administration of chloroform in cases of natural labor. 1, In the second stage of natural labor, the mild administration of chloroform is a safe remedy. He uses it constantly. 2, Chloroform is an excellent remedy in cases of rigid cervix uteri. It hastens dilatation. According to his observation chloroform does very little good in cases of rigid perineum. In such cases he sometimes uses multiple lateral incisions with benefit. 3, Chloroform is an invaluable remedy if your patient be an irritable and nervous woman. It calms her. 4, In eclampsia, our first duty, of course, is to use the lancet freely, nothing else will ever supercede the lancet here. But after the free use of the lancet, no remedy can equal chloroform in cases of convulsions in parturition. Dr. Boisliniere had never seen but the one fatal case from the use of chloroform in natural labor. He mentioned an interesting monograph by Dr. Coles, of this city, in which the author had examined the history of all the cases of parturition, reported having died from the effects of chloroform. The author concluded after a careful examination of all the evidence in each case, that only *one* patient had really died *from the effects of chloroform*. He also remarked that Dr. Channing, of Cambridge, who first used chloroform in a case of instrumental labor, in May, 1847, stated that "out of seventy-eight cases in which chloroform was used, four deaths occurred from post partum hemorrhage."

Dr. Johnston seldom carried chloroform to the point of complete insensibility; because chloroform relaxes muscular tissue, and hemorrhage might be the result. He preferred half ether and half chloroform. He used chloroform in natural labor cases.

Dr. Hodgen said—I desire to call the attention of the members of the Society to some of the phenomena of explanation that seem to have been overlooked by Dr. Boisliniere—atmospheric air contains seventy-nine parts of nitrogen and twenty-one parts of oxygen. The oxygen when it reaches the blood combines with carbon and forms carbonic acid. The nitrogen serves to dilute the oxygen and also furnishes a chemical agent with which the carbonic acid (which renders the blood venous) may diffuse and thus aid it in being carried out of the lungs. If a patient breathe pure oxygen or nitrous oxide, the blood becomes venous rapidly, first, because more than the usual amount of oxygen reaches the blood to combine with carbon and form carbonic acid, and secondly, because the proper facilities are not afforded for carrying off the carbonic acid. The very worst treatment to which a patient could be subjected—if poisoned by carbonic acid gas—would be to permit him to breathe oxygen in larger proportions than it is contained in the air. If he could be forced to breathe pure hydrogen, the blood would be sooner relieved of its load of poison, in accordance with Graham's law of the diffusion of gases (*i. e.*, gases diffuse with each other at a rate inversely to the square roots of their densities).

Dr. Hodgen favored the cautious administration of chloroform in labor—never to complete anæsthesia. He could not concur in Dr. Boisliniere's explanation of the method by which carbonic acid was eliminated from the blood by giving spts. ammonia. In the first place the hartshorn could absorb very little carbonic acid and then, instead of eliminating it, it would have just the opposite effect—it would promote the formation of carbonic acid in the blood. The presence of the spts. ammonia would render the blood abnormally alkaline. The alkaline condition of the blood is essential to its being a transporter of oxygen. Now if you make the blood abnormally alkaline by giving spts. ammonia, or carbonate of ammonia, or any of the salts of potassa, you increase the amount of carbonic acid in the blood instead of getting rid of it. Hence he objects to the use of carbonate of ammonia in the last hours of a feeble patient,—sure to see crape on the door the next day.

It seems to me that there is an error in the position taken by Dr. Boisliniere, in that, venous blood causes uterine contractions and chloroform causes venous blood, and that his patient

died of "post partum hemorrhage and partly from a venous condition of the blood." Now if the chloroform causes a venous condition of the blood (which it undoubtedly does), and venous blood causes uterine contractions, and if uterine contractions check hemorrhage, it is hardly possible that such a patient could die under these combined conditions.

In reply to Dr. Johnston's remark that the uterus could not possibly contract after the spinal cord has been severed, I will state that it has occurred that women have been delivered by unaided uterine contractions after death from apoplexy—and I have repeatedly seen frog's hearts contract after the removal from the body, and inflated with air until the thin auricles had dried and were broken by the continued action of the thicker and still moist parts of the organ. I once saw the heart of a turtle contracting regularly after it had been three days removed from the body, and I can readily believe that the uterus could expel its contents after its connection with the nervous centers had been severed.

Dr. Newman thought the fatal case reported by Dr. Boisliniere was no argument against the cautious use of chloroform in natural labor. As a rule he used chloroform in cases of natural labor, and thus far he had not had a single case of alarming post partum hemorrhage. He invariably gave a dose of ergot just as the child's head was passing the vulva. Ergot will prevent post partum hemorrhage. He did not agree with Dr. Boisliniere, that chloroform poisoning was the result of too much carbonic acid in the blood. He thought that theory incorrect. Death from chloroform almost invariably occurs where a very small quantity of chloroform has been given. One case reported died after the administration by inhalation of only one drachm. Death, in his opinion, was the result of a peculiar condition of the brain produced in these cases. Again death in many cases is due to fatty degeneration or to hypertrophy of the heart. If properly administered in cases of labor, chloroform could not but prove eminently successful, in his opinion.

Dr. Hughes favored the mild administration of chloroform in cases of natural labor. He considered it to be the physician's duty to mitigate the sufferings of the parturient woman—es-

pecially when it could readily be done without injury to either the mother or the child.

Dr. Keith reported a case of natural labor, in a large, plethoric woman—a multipara—in which chloroform was cautiously administered during the second stage. Whenever the woman felt a pain approaching he would give her a few whiffs and then remove the chloroform. In this way labor pains were anticipated and partly "nipped in the bud." She was never wholly unconscious, and between pains she was perfectly conscious. The anæsthetic was continued in this way until the birth of the child—a period of two and a half hours. The uterus contracted firmly without ergot. No post partum hemorrhage ensued. Mother and child did well. She had much less muscular soreness and stiffness, and less fatigue and exhaustion after delivery, than during her former labors when chloroform was not used.

While all the authorities agree that chloroform may be used in instrumental labors, in cases of hour-glass contraction of the uterus, and in the operation of turning, they are not agreed as to its use in natural labor. He considered chloroform, not only a safe remedy if cautiously administered to a proper subject, but positively beneficial. It relaxes the rigidity of the os uteri, the vaginal muscles, and the perineum, and thereby shortens labor. It prevents much muscular soreness and stiffness, caused by muscular tension during the agony of pain; thereby diminishing the amount of exhaustion.

St. Louis, March 7th, 1874.

Dr. Prewitt exhibited a pathological specimen—part of the heart from a patient who died at City Hospital of pneumonia. The patient was 25 years old, and never suffered from rheumatism. On physical examination he could not detect distinct bruit. He remarked that frequently the physical signs of valvular disease were found, without the anatomical reasons for such disease appearing on post-mortem. Autopsy did not confirm diagnosis. In this case, the reverse was true, the physical signs were absent, but the post-mortem revealed the anatomical reasons for a bruit. The two segments of the mitral valve had become one hard dense mass—the segments therefore could not close com-

pletely, as part of the valve was gone. A calcareous deposit was found about the auriculo-ventricular opening; semilunar valves of aorta healthy. The heart's action was tumultuous. The left auricle, and probably the left ventricle, were hypertrophied (only part of the heart exhibited).

Dr. Hodgen remarked that the mitral lesion alone would not account for the hypertrophy of the left side of the heart; mitral insufficiency would account for hypertrophy only of the left auricle, but no further hypertrophy. Proper space was wanting, owing to the calcareous deposit, for the passage of the blood from the left auricle to the left ventricle. Again, when the left ventricle contracts, mitral insufficiency would allow regurgitation into the left auricle, and hence there should not only be dilatation of the left auricle but thickening of its walls, also.

Dr. Edgar remarked that it was unusual for one so young to have calcareous deposit about the cardiac valves. This patient while living, was as liable to sudden death as an old man. Nearly half the cases of pneumonia in patients over fifty years old prove fatal, because of heart complications. In this case, the circulation of the blood was still further disturbed by the pneumonia, and the patient could ill afford it. It is not stated whether concentric or eccentric hypertrophy existed. In pneumonia among the aged, we should always examine the heart and sustain its action. He referred to the large mortality list from pneumonia. He used warm fomentations in treatment of pneumonia, with all classes; also tr. verat. virid., and supporting diet at regular intervals, but seldom abstracted blood, and never gave tartar emetic in this climate.

Dr. Kennard reported a case of cerebro-spinal meningitis. When first seen she presented all the symptoms of poisoning by arsenic. Had been taking quinine, iron, and Fowler's solution for intermittent fever. To quiet her stomach, he gave full doses of hydrocyanic acid dilut., with success. Severe neuralgic pains and convulsions supervened, followed by vomiting, pain in the head, etc. Months have elapsed and yet she is not well. A peculiar delirium ensued; she has frequent hallucinations. Can see no improvement in his patient—she is at a stand. Dr. Kennard next related a case of uterine colic. Patient was in convulsions, he began the treatment with bromid. potassa, in

half drachm doses; then chloral in doses of twenty grains, followed by the inhalation of chloroform. His patient suddenly ceased to breathe, artificial respiration was employed for several hours. Tried strong ammonia, ice water, fresh air, brandy enemata, and at the end of nine hours hardwork, by himself and Dr. Coles, she presented the appearance of returning consciousness and life. He related the case merely to call attention to the great danger of giving chloroform after chloral. He was satisfied from his experience in several cases that it should never be used.

Dr. Hughes referring to the case of cerebro-spinal meningitis reported, remarked that if the patient were on opium or morphia treatment, such hallucinations were readily accounted for. These cases of cerebral disturbance resulting from meningitis, scarlatina, measles and whooping-cough are numerous. He referred to a case of epilepsy whom he was proceeding to trephine, in order to remove spicula of bone—the cause of the disease. A few whiffs of chloroform convinced him that the patient would not survive if he used chloroform. He was compelled to desist. Patient had been accustomed to thirty grains of chloral at bed-time for months. Patient revived under the use of brandy, ammonia, ice water, etc. He felt loth to abandon the use of chloroform—

1. Because it is more agreeable to patients than any other anæsthetic, e. g., ether, alcohol, nitrous oxide, etc.

2. Because its fatality is due to its reckless use. Formerly we administered it more cautiously, and always provided in advance, plenty of cold water, pure air, ammonia, brandy, etc., with which to counteract its depressing influence. We called in three or four assistants—one to give the chloroform, one to watch the pulse, one to watch the breathing—besides the operator.

3. Because there are not as many fatal cases from its use as from the use of either alcohol or opium, and yet we do not think of abandoning alcohol or opium in our treatment.

Dr. J. M. Scott reported a case illustrating the danger of combining the administration of chloral and chloroform in a patient suffering from dyspeptic colic, whose agony was most intense. Patient had taken morphia and chloroform internally after which chloral was administered; patient went to sleep and

would be asleep yet but for the timely and prolonged efforts of two physicians to arouse him. He would never combine the two remedies again.

Dr. Montgomery was opposed to the indiscriminate use of chloroform in cases of uterine or abdominal colic, as well as in puerperal convulsions. Chloroform is a dangerous remedy in such cases. He used purgatives instead, also warm enemata, and warm fomentations to abdomen, and finally, if all else failed, chloroform. In uterine or abdominal colic he preferred purgation, then enema of turpentine and asafœtida, followed by morphia. In obstetrics, the great relief afforded by chloroform overbalanced its danger. While in Vienna, he was astonished to observe the care with which chloroform was administered at all the cliniques. Very little was given at a time. One assistant gave chloroform, one watched the pulse, another the breathing, another the countenance, while the surgeon operated. Here we give it freely and fearlessly; there sparingly and very cautiously, and remove it on the slightest untoward symptom. There are better remedies than chloroform in puerperal convulsions. Do not give chloroform in uterine or abdominal colic; it is like "locking the door with the thief in the house." He gave chloroform cautiously during the second stage of labor and during the agony of pain only.

Dr. Burgess reported a case of death from chloral occurring at Quarantine Hospital. Patient took twenty grains of chloral and was dead in one hour. Autopsy revealed numerous cavities in the left lung. Patient was in the last stage of phthisis and probably would not have lived two weeks longer in any event. The dose was given at bed-time merely to induce sleep. He never gives chloral to a patient with either heart or lung disease.

Dr. Dalton considered chloroform, internally administered, the best method of controlling violent acute neuralgic pains, such as spasmodic pain of the femoral nerve in drunkards, and gastrodynia. He gave twenty or thirty drops in mucilage or sweetened water, combined with spts. ammonia aromat. and syr. zinzib., without any injurious effect.

Dr. Leffingwell said chloral is converted into chloroform in the blood. Hence their action is about the same. He knew two patients who had become insane from the excessive use of

chloral. Chloral produces anæmia of the brain and diminishes the sensibility and action of all the nerves.

Dr. Hodgen knew no disease of either heart, lungs, or nervous system that contraindicated the use of chloroform; and yet he never administered it without feelings of solicitude. He had lost one patient from chloroform. Patient suddenly ceased breathing after inhaling but a few whiffs—and was dead. He uses Squibb's pure chloroform. Another patient who had borne it well on former occasions, came near dying at another time, and was with great difficulty resuscitated.

Dr. Youngblood's anæsthetic in natural labor consisted of half chloroform and half ether, with good results.

Dr. Coles gave chloroform in all cases of labor, where the patient desires it. He did not anticipate as serious results from its use in obstetrics as in surgical or dental cases. Experience had taught that in all cases where the nervous system has undergone previous preparation, and its energies have been taxed, as during pregnancy, chloroform has not been as detrimental as in apparently healthy subjects. Fatal cases nearly always take us by surprise. Statistics show that the majority of fatal cases occur before the patient is fully under its influence; and in which autopsy reveals no lesion of the heart. Death from chloroform is due to nervous shock and not to carbonic acid in the blood, as Dr. Montgomery thinks. In labor, the system of the female has undergone many months of preparation for this trying event; she has become literally *nerved up* to the great work, and, hence, neither heart, lungs, nor brain, is so profoundly impressed by the slight doses required in ordinary cases of labor.

Dr. Bryson reported a fatal case from chloroform. Patient was robust and full habited, but of very irritable, nervous disposition. Was being anæsthetized preparatory to an operation for prolapsus ani. Was suffering intense agony and begged not to take chloroform. Anæsthesia, however, was produced, and patient was turned on his side in readiness for the operation, when he suddenly ceased to breathe, and all efforts to revive him proved vain. Autopsy revealed no pathological condition of either heart or lungs. "He was the last patient in the world to whom I would have given chloroform, because of his exceedingly irritable disposition." It was given by order of

the resident physician at the hospital at the time. He uses chloroform in obstetrics, with females, too, whose lungs are known to be diseased. Society adjourned.

CLAYTON KEITH, M. D., *Recording Sec'y.*

Reviews and Bibliographical Notices.

A SYSTEM OF MIDWIFERY. By Wm. Leishman, M. D., Regius Prof. of Midwifery in the University of Glasgow, etc. In one large octavo vol., 700 pages. Philadelphia: H. C. Lea.

The fact that Dr. Leishman's work has been so promptly republished in this country by one of our most enterprising and reliable houses, is in itself a compliment to the author. In all practical branches of medicine and surgery, America can boast of having held her own against foreign competition. Although our libraries are well stored with the many able treatises which have, from time to time, enriched the literature of obstetrics, we possess none of the bigotry which would reject a strange face or unfamiliar name, as is the case with our Scotch author. For, while the practice of midwifery has undergone little radical improvement during the last decade, there are still many points connected with the physiology and pathology of the parturient process, which modern research has contributed much to elucidate. Hence, in these particulars at least, the profession naturally expects some additional light from every new writer upon the subject. The author seems to comprehend the responsibility resting upon him, for he announces in the Preface to his work, that his object is "to furnish to students and practitioners a complete System of Midwifery of the present day."

After a somewhat careful perusal of Prof. Leishman's work, we can testify to the admirable thoroughness of his difficult task. We shall call attention to certain points wherein, in our judgment, the author has fallen into errors either of *commission* or

of *omission*, chiefly however the latter, many of which necessarily occur in the first edition of the most careful writer. On the whole, the book is an admirable one; condensing in a concise form a thorough treatise on the science and practice of midwifery, including (the best part of the book) very full comments on the diseases of pregnancy and the puerperal state. The work is remarkably free from typographical errors, and copiously illustrated throughout. Whilst it must be conceded that the author lacks the genius of Simpson, the originality of Barnes, the terseness of Tyler Smith, and the precision of the learned Murphy, no fair-minded critic can deny that his book is invaluable to every practitioner of obstetrics, chiefly in view of the modern light which has been diffused throughout its pages.

In the first chapter, after a cursory but interesting glance at the history of midwifery, the author closes with a review of the comparative anatomy of the pelvis in mammalia, tracing it from its primitive condition up, through the monkey and gorilla tribe, to the human female—pointing out the changes that occur in the osseous union of the several component parts of this structure preparatory to labor, and suggests that nature provides for this process in women to a greater extent than is generally supposed. He states that the loosening of the bones occurs at the sacro-iliac articulation rather than at the symphysis pubis, at which point the bones play upon each other with a hinge-like motion. From which it will be seen that in the human female nature has provided for little lengthening of the conjugate diameter of the pelvis. The author calls attention to the fact, that in the African and other lower races, the pelvis bears a closer resemblance to the gorilla type than obtains in the Caucasian, but explains the facility of the parturient act in the lower races by reminding us of the inferior dimensions of the fœtal cranium with them. It would be interesting in this connection to inquire whether or not, a cross between the Caucasian and negro, induces a larger percentage of difficult labors? Should this point be established, it would prove a *hard nut* for the miscegenationists to crack.

Chapter V, on "Menstruation and Conception," is exceedingly interesting, and the subject treated far in advance of most text-books in the hands of students. In regard to the "source of the menstrual discharge," the writer frankly admits that

"there are few subjects in physiology which have given rise to more discussion than this." Whilst conceding that the flow comes from the internal surface of the uterus, he discards the old "*secretory*" theory, "in the proper acceptation of that term," as unworthy of serious attention. He also rejects the theories of Pouchet and Tyler Smith, that the blood escapes from broken vessels, the result of shedding of the lining membrane of the uterine walls, and whilst accepting the denial of Coste, that there is any such *shedding*, but rather a thickening and corrugation of mucous membrane, he dismisses the "*exudation*" theory, by remarking that the idea of "a considerable hemorrhage taking place in this manner, without any breach whatever in the walls even of the smallest vessels, is a conclusion which all physiological analogy forbids us to accept." (p. 92). The author inclines to the views of Kölliker, who may be said to hold a middle ground. Alluding to the unsettled status of this subject, he says in conclusion,—"as regards the manner in which individual blood-corpuscles escape from the tubes in which they are contained, we must be content for the present to remain in a measure ignorant, as none of the theories hitherto advanced have up to this time been proved to be correct."

The author's account of the development of the *ovum* and *fœtus* in Chapters VI and VII is exceedingly instructive, and fully up to modern research. His views of the nature and development of the *decidua* are strikingly in advance of many of the more recent text-books, and deserve to be closely studied, not only from their physiological interest, but that we may gain a clearer insight into the nature and management of abortion, a subject upon which the ideas of too many, even of experience, are exceedingly crude.

The subject of pregnancy is exhaustively treated by the author, though it appears to us he exaggerates *ballotement* as a practical means of diagnosis, for whilst it is undeniable that this affords a very sure test of pregnancy when practiced at the proper time, yet the difficulties attending its successful accomplishment will generally be found greater then the text would indicate. The modern idea put forth by Steinbach and Frankenhauser, that it is possible to predict the sex of the child by the fœtal pulse is adopted; the writer holding that the female heart is faster than the male in the proportion of 144 to

131. In Chapter XI the subject of plural pregnancy and extra uterine pregnancy is instructively and fully discussed, and whilst it must be confessed that but little fresh light is shed upon this foggy question, the author presents a bird's eye view of the various theories on the subject.

Chapter XII, on the Abnormal Development and Diseases of Fœtus, is one of the most valuable and instructive in the text, and is well worth the price of the book to any one desiring a clear, scientific exposition of this intricate topic. We regret that want of space prevents a more detailed reference to this interesting subject.

Chapters XIII and XIV are devoted to a discussion of the diseases of pregnancy. For one of the most annoying of these—nausea—the usual remedies are recommended, with the frank admission that there are some obstinate cases, where none of them avail. It is a little singular that no mention is made of *electricity* (galvanism) as an agent well worth trying in intractable cases of vomiting. For besides commending itself on theoretical grounds, considerable testimony of a practical nature has already been adduced in its behalf. We recall one instance, where the woman was *in extremis*, and in which a few applications of electricity, "passed through the epigastric region," produced prompt relief.*

On the propriety of inducing premature labor in desperate cases of excessive nausea and vomiting, the writer is exceedingly cautious, and whilst admitting that cases may arise in which a destruction of the ovum is necessary and justifiable to save the maternal life, he hedges his position by so many *provisos*, that the student is in danger of being confused and misled thereby. He quotes from Cazeaux the instance of a young woman whom Dubois and Chomel "left," considering it a "hopeless case," who nevertheless, at the last moment, suddenly recovered, and went safely through her pregnancy. In regard to the frequency of uncontrollable vomiting, the author says: "let the young practitioner be assured that a life-long experience will scarcely bring such a case under his observation, and let him beware, therefore, lest by exaggerating to himself the importance of the symptoms which are under his observation,

* Rankin's Abstract, January 1872, p. 221.

he may in his anxiety be led into error" (page 218). Now whilst the reviewer is free to admit that this is a question of grave responsibility, which every man should be taught to feel to the uttermost, yet it is one which arises more frequently, perhaps, than the author would lead us to suppose, and when it does occur, demands *prompt* action, and should be met *unflinchingly*. We have too much respect for those who conscientiously oppose the induction of abortion on religious grounds, to attempt any argument with them. We will state, in a few words, what plan of action accords with our views, not only of morality, but of common sense. Whenever the vomiting of pregnancy becomes so excessive and uncontrollable that starvation and death from inanition is in all human probability and experience, imminent, then it is our duty to give the woman the benefit of the only hope left her, namely, the induction of premature labor. Assuredly, such a course would only be justifiable after competent and experienced consultation, and when all other means have failed; but when the conclusion is reached, the operation should no longer be delayed, for we know personally of several instances of the kind, where a *Micawber-like* procrastination has proved fatal.

The citation of such miraculous recoveries as Cazeaux mentions in the case of Dubois and Chomel, is dangerous in a work professing to be a "safe guide" to students, for judging from Dubois' well-known attitude on this subject, we infer that he "left" the case mentioned with her "fate sealed," not that he opposed the induction of abortion, but because he deemed it too late to operate. It is clear that no moral element could have entered into his decision, for if he conscientiously believed, as Cazeaux claims, that the patient "seemed doomed to certain death,"* the fate of the fœtus was already sealed with that of the mother. We are sure that Dubois and Chomel assumed no such untenable position as Cazeaux places them in. On the contrary, it would appear from the language of Dubois, that he took a more rational view, and declined to interfere in this case, simply *because* it appeared "hopeless." The following are his general views on the subject, he says: "The production of abortion in the third stage of the disease (vomiting) is liable to the

* Cazeaux's Midwifery, page 475.

grave objection of not saving the patients, but of hastening their end, and compromising our art. If done in the first stage, there would be the not less serious error of sacrificing a pregnancy which might, perhaps, have progressed happily to its term. Therefore we conclude that the operation is applicable to the period intermediate to those mentioned."

The chapters on *labor* are all well-written, and evince much pains-taking, research and practical knowledge. There are several points of interest connected with this portion of the volume before us, which we are compelled to pass over unnoticed for want of space. The author controverts the views of Naegele, in regard to the biparietal obliquity of the head in its descent through the pelvis; he says, "we accept in general terms all his conclusions with the exception of the last, to the investigation of which we have devoted much time and patience, and conclude unhesitatingly with Velpeau, Cazeaux, Matthews Duncan, and many others (the number of whom is constantly increasing), that no such biparietal obliquity as Naegele described exists as a normal phenomenon of natural labor" (page 281). A separate chapter devoted to this discussion appears as an appendix to the end of the work.

In reference to the abdominal bandage, the usual explicit directions are given in the text. Notwithstanding the bandage is generally recommended by our best obstetrical authorities, the reviewer ventures to suggest that Dr. Leishman goes too far in his endorsement of an appliance which, as nearly always employed, can be viewed only as one of the many traditions which have been handed down through generations. The fact that obstetrics is so much in the hands of midwives and nurses, has kept alive many maxims and antique notions, at which the modern physician has learned to smile, and treat as a whim, which it is better to humor than to waste his time in combatting. It may be premature to raise a revolt against the obstetric bandage at this time, but we believe the day is hastening, when far less stress will be laid upon it in our schools than at present. Our author recommends the bandage for a three-fold purpose: 1st, as an abdominal supporter; 2d, to prevent hemorrhage (suggesting when there is "any tendency to hemorrhage," to fold a towel and place it over the womb); 3d, "another, and subsequent use of the bandage in the hands of a

skillful nurse, is the preservation of the woman's figure." He then proceeds to say that a "bolster cover" serves the purpose admirably, or else he employs a T bandage (page 267). Now as for the T bandage, it is simply an abomination which must necessarily become soiled with the discharges, and eventuate only in harm to the patient; whilst the "bolster cover,' pin it on as you may, will in nine cases out of ten, slip up into a loose rope around the waist, producing more annoyance than profit. Of the only two forms of bandage recommended by the author, we consider one dangerous; the other, in the majority of instances, practically useless to effect any of the ends for which it is prescribed. Where there is a tendency to syncope, a bandage is doubtless a good thing, and when properly made and applied, may prove a temporary comfort to the woman, but further than this, we doubt its utility. If hemorrhage is imminent, it is far better to leave the bandage off, so that we can apply the hand freely, and by frequent or constant pressure on the uterus, see that the organ is well-contracted and kept so, until ergot or other remedies have time to take effect. When applied as an abdominal supporter, or with a view of "preserving the figure," it is apt to be pinned so tightly as to do mischief. The idea prevalent amongst our women, that it is in the power of their doctor or nurse, to secure them their original virgin figure after confinement by a suitable binder, is an absurdity which should be discouraged. Physicians are frequently and unjustly made the scapegoat of a lady's natural *embonpoint*. As a factor in the production of uterine displacements, Dr. Thomas, in his work on "Diseases of Women," (page 63) thus speaks of bandages. He says: "I feel that a great deal of superstition attaches in the lying-in room to this appliance, both as a means of preventing deterioration of the figure and post partum hemorrhage."

The advantages claimed for the bandage as an "equalizer of the circulation," we believe are also much exaggerated, for the pressure on the abdominal parietes only throws that much more blood into the pelvic viscera. When this pressure is kept up, with increasing force from day to day, there is no telling how far it may contribute to congestions, displacements, and other post partum complications.

Chapter XXI is devoted to the management of prolapsed

cord, in which the subject is fully and excellently handled. The author recommends the "postural position" of Thomas, aided by such instrumental devices as have been contrived by Michaelis, Roberton, Braun, and others.

The succeeding chapter on "Abortion," is well worthy of close study, abounding as it does, in judicious instruction. We are particularly pleased with his cautions against the forcible extraction of the premature placenta. The subject of *placenta prævia* is thoroughly and well treated, although we cannot agree with the author in recommending "bipolar" version as the preferable mode of procedure in these cases. The placenta, from the nature of its implantation, will often prove a formidable mechanical obstacle. Notwithstanding the "surprising ease" with which, according to the text, it can be performed, and the high enconiums passed upon it by Wigand, Lee, Hicks and Barker, of our own country, we have frequently found it, even under favorable circumstances, difficult and uncertain. When everything is favorable, and there is no especial hurry, the bipolar method is well worth trying, but in an emergency, like placenta prævia, we would prefer the ordinary procedure, for many reasons.

"*Hemorrhage after delivery*," furnishes an exceedingly interesting chapter. In such cases, where the woman is thoroughly exsanguinated, we prefer however, to rely on large doses of tinct. of opium to "brandy." The beauty of full doses of laudanum (teaspoonful) is, that it stimulates the heart, whilst at the same time it quiets nervous irritability without producing too violent reaction. This treatment is particularly applicable in hemorrhage from abortion, where its recurrence is dreaded.

The author gives full directions for transfusion, should that be deemed necessary, with an excellent wood cut illustrating the method and apparatus of Aveling, which is a very simple one, consisting merely of a gum tube, one end of which is inserted into the arm of the person supplying the blood, whilst the other enters the vein of the patient, the blood being forced in by means of a bulb midway between the two. It occurs to us, that the aspirator of Smith, or Dieulafoy, would be less apt to contain air, and might be advantageously employed as a substitute for Aveling's apparatus.

The author has a splendid chapter on "Rupture of the Uterus,"

and we are glad to see, favors the prompt performance of *gastrotomy*, where the child has escaped into the abdominal cavity.

In treating of the application of *forceps*, the volume before us is liable to the objection which appertains to all English works, in as much as the woman is placed in the obstetric position common to that country, *i. e.*, on the *left side*. This is very apt to produce confusion in the minds of the American student,—especially in the matter of *handling* the instrument. The position *upon the back*, usual in this country and France, seems to us much more convenient. The author recommends Simpson's forceps, but makes no mention of American instruments, several patterns of which are equal to, if not superior to any others. After considerable experience with Simpson's forceps, we must say that the instruments of Elliot and Hodge are infinitely preferable, in ease of application, adaptability and safety. The text has several cuts illustrating the application of forceps, two of which, are very defective. In Fig. 150, p. 458, representing the forceps locked on the head when resting on the perineum, the handles incline entirely too far backwards. In Fig. 152, representing the application when the head is at the pelvic brim, only *two* fingers are introduced partially into the vagina, whereas, a greater portion of the *whole hand* should be introduced, in order to properly guide the blade into the os and over the parietes of the child. The student should remember, in applying forceps, that the hand in the vagina has quite as important function to perform as the one holding the handle.

The chapter on *Hysterotomy*, etc., is very minute and clear, although we expected to see some mention of the operation of *gastro-elytrotomy*, proposed by Ritgen, of Germany, in the early part of the present century; also by Physick, of Philadelphia, and Baudelocque, of France. This important modification of the Cæsarean section, by which section of the peritoneum is avoided, seems to have attracted less attention than its merits probably warrant, until recently revived by Dr. Thomas, of New York who, in 1870, performed the operation successfully.

The chapters on the management of the puerperal woman and the new born infant are well written. When we have, reason to believe that "*after-pains*" are due, as they often are, to clots in the womb, a dose or two of ergot is frequently better practice than to rely exclusively on "*anodynes*." The

author speaks of "milk fever," "ephemera," and "weed," as synomymous terms. Such, however, is not our understanding of it in this country; ephemera, milk fever or "third day fever," is the normal accompaniment of a physiological process, *i. e.*, the secretion of the milk, whereas what we call "weed," is an irritation and congestion, or even inflammation, of the lactiferous ducts, and is always essentially a pathological condition, due to cold, overdistention, or obstruction of the milk ducts, which is seldom seen before the mammary secretion is fully established. In deficient secretion of milk, the writer places his dependence on the galactagogue properties of castor leaves, which are very good; he might have added, however, that where they fail, galvanization of the breasts has proven a most efficient means of exciting secretory action.

The author gives minute and admirable directions for managing the new born child. Amongst the *minutiæ*, he omits one thing, which it is important for the student to know. He tells him that the child should be washed with "*soap and warm water*," thus omitting to point to the fact, that a majority of babies cannot be properly cleansed by simple soap and water, but in consequence of a peculiar cheesy substance, which adheres to the skin, it is necessary first to annoint them with sweet oil or lard, before this can be removed. Should this precaution be neglected, this sebaceous substance quickly becomes rancid, producing troublesome excoriations and sore scalps.

The remarks of the author on the induction of premature labor, and those chapters on puerperal diseases generally, are most excellent. He accords with Tyler Smith in his views of puerperal fever, believing it due to a specific influence or poison, which though sometimes existing without lesion, is generally accompanied by local manifestations. It is a little singular that although a large space is given up to the discussion of puerperal fever, no mention is made of the thermometer, an instrument which of late years has proven itself an invaluable aid to the physician, and in no class of diseases is it more indispensable than in puerperal, not only as a means of diagnosis, but also of prognosis.

It is difficult for the reviewer to do either the author, or himself justice, in the few pages which we devote to a large work like Dr. Leishman's. We trust that no one will be prejudiced against

the work in consequence of any thing we have said in the way of criticism; for notwithstanding we have found some fault with it, it has been mostly in minor details, and we can conscientiously pronounce it one of the most valuable and advanced of our many treatises on obstetrics. It is full of evidence of close conscientious study, and we hope it will be extensively read and closely studied by young and old. W. C.

A UNIVERSAL FORMULARY. Containing the methods of preparing and administering Officinal and other Medicines; adapted to Physicians and Pharmaceutists. By R. Eglesfeld Griffith, M. D. Third edition, revised and enlarged, by John M. Maisch Ph. D., 8vo. pp. 789. With illustrations. Philadelphia: Henry C. Lea, 1874. Cloth $4.50; leather, $5.50.

In the introductory chapter we find a table of weights and measures, weights of the United States and Great Britain, Dublin and foreign, relation between the different thermometrical scales, observations on the management of the sick-room, administration of medicines, rule for the dose, management of convalescence, and relapses, dietetic preparations, list of incompatibles, etc. The work concludos with an index of diseases and their remedies, and index of pharmaceutical and botanical names, and a general index. This volume forms a valuable supplement to the U. S. Dispensatory, and should be consulted by every druggist as well as physician. Many remedies introduced during the last decade find acknowledgement and just appreciation in this work. This edition is so carefully revised and materially enlarged by the addition of new remedies as to place it abreast with this department of science, and make it worthy of the continued favor and partiality heretofore awarded.

DICTIONARY OF ELEVATION AND CLIMATIC REGISTER OF THE UNITED STATES. By J. M. Toner, M. D. New York: Van Nostrand, Publisher, No. 23 Murray Street. Price $3.00 in paper; $3.75 in cloth.

Dr. Toner, of Washington City, has laid the medical profession and the public under lasting obligations for his compilation of elevations of the cities and towns in the United States having recorded measurements; also climatic registry, including latitude, mean annual temperature, and the total annual rain-

fall of many locations; together with a very interesting sketch of the relative positions which the populations and cities of antiquity bore to the large water courses, sea shores, and elevated table-lands of the old world. The alphabetical arrangement makes it convenient for reference; a valuable acquisition to any library, but particularly valuable to physicians who desire to prescribe changes of elevation intelligently; to all such, this book is a reliable guide. Compiling these tables has necessitated much painstaking labor, and the printing heavy expense. Will the profession appreciate by purchasing the work promptly?

AN INTRODUCTION TO PHYSICAL MEASUREMENT, with Appendices on Absolute Electrical Measurements, etc. By Dr. F. Kohlrausch, Prof. in Ordinary, etc. Translated from the second German Edition by Thomas Hutchinson Waller, B. A., B. Sc., and Henry Richardson Proctor, F. C. S. New York: D. Appleton & Co., pp. 249, 8vo.

[For Sale by the St. Louis Book & News Co.]

As the title indicates, "the major part of this treatise is devoted to measurements of physical quantities, one design of this manual is the better to prepare the student for original investigation, by leading him to a knowledge of his powers to verify measurements independently."

A chapter on rules for numerical calculation, calculation of corrections, etc., on weights and determination of density or specific gravity of fluids, of solids, density of air or of a gas from its pressure and temperature; on heat, elasticity, light, magnetism and electricity, galvanism, with appendices and tables on numerous subjects of vital importance and interest to the original investigator. "The mathematical knowledge required is but very elementary, as the proofs of the formula are only given when they present no complex arguments."

Investigators of medical questions requiring accuracy in operations, will find this volume invaluable.

THE PHYSICIAN'S DOSE AND SYMPTOM BOOK, containing the doses and uses of the principal articles of the Materia Medica, and officinal preparations; also, a table of Weights and Measures, Rules to proportion Doses of Medicines, Common Abbreviations used in writing Prescriptions, Tables of Poisons, and Antidotes, Index of Diseases and Treatment, Pharmaceutical

Preparations, Table of Symptomatology, Outlines of General Pathology and Therapeutics. By Joseph H. Wythes, A. M., M. D. *Eleventh Edition*, revised. Philadelphia: Lindsay and Blakiston, 1874.

This popular little vade mecum again appears in new dress, with numerous improvements, having been carefully revised is in accord with the last edition of the U. S. Dispensatory. It seems designed to be an ever present help to memory, and suggestive particularly to the inexperienced in writing prescriptions, and regulating the dose according to age, sex, temperament, habits, climate, idiosyncrasy, etc. As it comprises most of the remedies in common use in a general practice, it may be referred to more conveniently than the larger works.

Obstetrical Aphorisms, For the use of the Student commencing Midwifery Practice. By Joseph Griffiths Swayne, M. D., Second American, from the Fifth revised English Edition, with additions. By Edward R. Hutchins, M. D. Philadelphia: Henry C. Lea. 1873.

A valuable guide to the young practitioner so far as it goes; and in convenient form to slip in his pocket as he leaves his office to attend upon an obstetrical case at a distance. This book will be better counsel than can be commanded every day in a scattered population.

The chapter on abortions is a "word fitly spoken;" also that on the care of the new-born infant is suggestive.

Galvano-Therapeutics.—

We have from the enterprising publishing house of Lindsay and Blakiston, Philadelphia, a neat reprint of a revised report, made to the Illinois State Medical Society, by David Prince, M. D., of Jacksonville, Ills., on Galvano-Therapeutics, 8vo. pp. 64. Bound in cloth.

The author in this report commends himself to his professional brethren as "good society" by giving ideas in exchange for the many he confesses in his Introduction to have received from laborers in the same field.

The clinical instruction contained in this monograph will be highly appreciated by all who are feeling their way, to a more scientific application of this most subtle but potent therapeutic agent. While the application of electricity was mostly empyri-

cal, it naturally passed into the hands of empyrics, from whom it is now in fair way to be rescued, and to take rank with our most valued remedies. The want of convenient and durable apparatus has been so successfully met by the manufacturers (see cards in the JOURNAL), that physicians are quite inexcusable for being without the necessary means.

BOOKS AND PAMPHLETS RECEIVED.

FIFTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. January, 1874. Boston: Wright & Potter, Printers.

HERPES GESTATIONIS,—a Rare Affection of the Skin peculiar to Pregnancy. By L. Duncan Bulkley, M. D. Reprint from the *American Journal of Obstetrics.* New York: Wm. Wood & Co.

FORTY-EIGHTH ANNUAL REPORT OF THE MASSACHUSETTS CHARITABLE EYE AND EAR INFIRMARY. 1874. Boston: Alfred Mudge & Son.

POST-MORTEM CHANGES *vs.* ANTE-MORTEM LESIONS. By Stanford E. Chaille, A. M., M. D. From the *New Orleans Medical & Surgical Journal.*

THE MEDICAL COLLEGES, THE MEDICAL PROFESSION AND THE PUBLIC. By S. E. Chaille, A. M., M. D. From the *New Orleans Medical and Surgical Journal.*

TREATMENT OF NERVOUS AND RHEUMATIC AFFECTIONS BY STATIC ELECTRICITY. By Dr. A. Arthius. Translated from the French by J. H. Etheridge, M. D. Chicago: W. B. Keen, Cook & Co. 1874.

ANNUAL REPORT OF THE SUPERVISING SURGEON of the MARINE HOSPITAL SERVICE OF THE UNITED STATES, year 1873. By John M. Woodworth, M. D., Washington Printing Office.

CATALOGUE OF THE LIBRARY OF THE SURGEON GENERAL'S OFFICE, U. S. A. *Volume Third.* Washington Government Printing Office 1874.

BRITISH JOURNAL OF DENTAL SCIENCE, February, 1874.

WRITERS' CRAMP, OR SCRIVENER'S PALSY. By Reuben A. Vance, M. D., New York.

REPORT OF THE FIRST KENTUCKY LUNATIC ASYLUM, Lexington, Ky., 1873.

Treatment of Poisoning with Chloral.

Dr. Albert Erlenmeyer discusses the best method of treating patients who, either by inadvertence or idiosyncrasy, have taken too large a dose of chloral. The symptoms of the toxic influence of this substance are—collapse, diminution of the frequency of respiration, which has been observed to be reduced to four in a minute; injection of the conjunctiva, contraction of the pupil, blueness of the lips, dropping of the lower jaw and retracted tongue, whilst the pulse is in the early stage strong and slow, but subsequently becomes frequent and feeble, and ultimately scarcely perceptible. In more protracted cases, the face becomes pale, there is a tendency to fainting and vomiting, rigors, disturbance of voluntary movements, weakness of the lower limbs, and cramps in the calves of the legs. Erlenmeyer recommends, first, that the chloral should be removed from the stomach by emetics or the stomach-pump, or be much diluted with water, tea, or coffee; secondly, that the artificial respiration should be maintained; and thirdly, that some antidote should be given. Erlenmeyer doubts the value of strychnia as recommended by Liebreich, since, although chloral is useful as an antidote to strychnia, it by no means follows that strychnia should be an antidote to chloral; for we find that morphia is an antidote to atropine poisoning, but atropine is not an antidote in poisoning by morphia. He thinks musk might be tried, but is inclined to place most reliance on liquor ammoniæ, subcutaneously injected. As a last resource, transfusion may be adopted. (*Der Praktische Arzt*, Band xiv. 11.)—*British Practitioner.*

CORRECTION.

We learn from the Faculty of the Missouri Medical College, the number of graduates this year was *43* and the *ad eundem 9.*

Editorial.

THE MEDICAL COLLEGES.

We have read with interest Dr. Chaille's, of New Orleans, address on the "Medical Colleges, the Medical Profession, and the Public." Granting all the Doctor claims in regard to the failure of the American Medical Association's effort to raise the standard for matriculates in medical colleges, the evil of low fees, failure of legislative efforts, etc., to improve the average doctor in America, still we do not think the case so hopeless as the Doctor seems to intimate. Neither do we exactly agree with the *Medical Times*, that "the medical schools are the curse of the profession," but rather that the individual members of the profession are chiefly responsible for cursing the profession, by receiving incompetent persons as students; for, if the doctors in practice, scattered over the country, did not receive in their offices, or in any way encourage or become responsible for, the incompetent or unworthy young men who seek to enter the profession, they would not find their way to the schools, hence could not be graduated and sent forth to lower the standard of the profession, and rob it of its title of a "learned profession." We say the responsibility and remedy is with the members of the profession who make the loudest complaint, and while they neglect or refuse to apply the proper remedy, they should endure the evil with patience; "let every man build the broken wall in front of his own door," and the good work will soon be apparent. If a young man is not a scholar and a gentleman, the study of medicine will not make him either, and if he has taken the time to graduate at any of our literary institutions, he will give evidence of superior culture as long as he lives; nothing can compensate for a liberal preparatory education. Let each member of the profession insist on thorough qualification, prior to beginning medical studies; if the aspirant has not the industry and perseverance to lay the foundation thus deep and broad, decline any responsibility in his case, and disuade him from medicine. That men have become good and successful physicians or surgeons without preliminary education, is no argument; the cases are exceptional, and no one of them fails to lament his haste in entering the profession so poorly quali-

fied all his life after. The oral teaching, text-books, literature, and clinical opportunities, are infinitely better to-day than they were thirty or forty years ago, yet the average standing of the profession is greatly below what it was then. Then, no young man presumed to think of entering the medical profession without a liberal education: now, the majority claim it is not necessary.

The source of the evil is obvious, the remedy is patent to all. Will the profession awake to the importance of the subject and see to it that no *relative, friend,* or *patient's friend,* receives encouragement or aid to enter the profession, until he is clearly qualified to be a success to himself, and at least not a reproach to the profession?—and five brief years will hardly have passed when the desired reform will be everywhere manifest.

Few young men who graduate at our literary institutions, at the present time, choose the profession of medicine, preferring the law or business to being placed on an equality with men who never passed a day in college or in preparation to enter college classes—men who depend on shrewd methods of advertising, beguiling and manipulating the public to their patronage, which methods honest and competent men are not likely to stoop to. This error unsettles the classes in literary institutions, and works evil, and only evil, everywhere. It is to be hoped that the pioneer condition of the country and profession, have so far passed, as to warrant a return to methods long established by the experience of the most enlightened and cultivated people on the earth. We repeat, in conclusion, that, in view of the evils so generally acknowledged, referred to above, it becomes the duty of every member of the profession to see well to it that every young man who obtains his sanction or aid to engage in the study of medicine, first pursues a thorough course of preparatory studies. Will they do it?

AMERICAN MEDICAL ASSOCIATION.

The Twenty-Fifth Annual Session will be held in the city of Detroit, on Tuesday, June 2d, 1874, at 11 o'clock a. m.

"The chairman of the several sections will read in the general sessions of the Association, papers on the advance and discoveries of the past year in the branches included in their respective sections." * *

"Papers appropriate to the several sections, in order to secure

consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them."

Important alterations in the By-Laws and Constitution are pending the action of this coming meeting, hence, a large attendance is desired.

Dr. Wm. B. Atkinson, the permanent Secretary, who resides at No. 1400 Pine Street, Philadelphia, Pennsylvania, desires the secretaries of all medical organizations that have adopted the Code of Ethics, to forward to him a complete list of their officers, with their post-office addresses, and the number of their members in good standing. This is the only guide for the Committee of arrangements in determining as to the reception of delegates.

It will enable the Permanent Secretary to present a correct report of the medical organizations in fellowship with the Association.

LINTON DISTRICT MEDICAL SOCIETY.

The Linton District Medical Society convened according to notice on the 7th of April, at Louisiana. There was a large attendance of earnest, sensible men. Neither egotism, pomposity, nor toadyism; no medicalethics, no fee bills, no medical education hobbies, no constitutional amendments or by-laws, to waste time in discussing; no rings, cliques, or schools, to push this or that man's preferment. But one spirit seemed to animate the assembly, and that was their mutual improvement in medical science. It is truly a rest to attend such a meeting. The plan adopted by this Society, of visiting each of the counties in the District *seriatum* is admirably calculated to promote a revival of interest in the discussion of medical subjects, and the result is that many men join the Society and become working contributors, thereby attaining higher culture in the profession themselves, while they add something to the general stock of medical knowledge. The next meeting will be held at Fulton, on the first Thursday in November next, at 9 a. m. The following officers were elected for the ensuing year: Dr. H. H. Middlekamp, of Warrenton, President; Dr. S. B. Ayres, of Louisiana, first Vice-President; Dr. W. W. McFarland, of Fulton, second Vice-President; Dr. J. W. Lanius, of Mexico, Secretary, and Dr. W. S. Hunt, of Troy, Treasurer.

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

MARCH, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	38.0	42.5	18	56.5	77.0
2	35.5	59.5	19	37.0	49.0
3	49.0	70 5	20	37.0	55.0
4	34.5	45.0	21	44.5	64.5
5	34.5	51.5	22	34.0	61.0
6	47.0	63.0	23	30.0	38.5
7	36.0	50.0	24	23.0	39.5
8	27.0	46.0	25	32.0	62.0
9	38.0	55.5	26	45.0	54.0
10	36.0	45.0	27	27.5	33.5
11	30.0	43.5	28	26.0	42.0
12	30.0	40.5	29	33.0	45.0
13	30.5	35.5	30	38.0	55.0
14	29.0	43.5	31	32.0	41.0
15	38.0	46.5			
16	44.5	53.0	Means	35.8	51.0
17	47.0	72.0	Monthly Mean	43.4	

Quantity of rain: 3.71 inches.
" snow: 0.10 "

3.81 inches.

Mortality Report.—City of St. Louis.

FROM MAR. 21st, 1874, TO APRIL 18th, 1874, INCLUS.

Aortic Disease..... 1	Consumption 65	Hepatitis 3	Premature Birth.... 5
Alcoholism 1	Convulsions 24	Hydrophobia..... 1	Pneumonia 51
Accident..... 3	Croup..... 4	Hemorrhage..... 1	Pleuritis..... 1
Anæmia 4	Cyanosis..... 2	Icterus 1	Pericarditis..... 1
Angina Pectoris..... 1	Debility.....12	Inanition..... 1	Phlebitis 4
Asthma..... 8	Dropsy..... 5	Lungs, Conges. of.. 3	Puerperal hemr'ge.. 1
Asphyxia 1	Erysipelas..... 3	Marasmus.....12	Rheumatism..... 1
Atalectasis 1	Embolismus 2	Meningitis 2	Small Pox..... 6
Apoplexy..... 4	Fever, Typhoid.....10	" Cer. Spin. 8	Trichiniasis 1
Brain, Conges. of...11	" Scarlet 2	Morbus Coxarius ... 1	Tetanus..... 6
" Concus. of... 1	" Remittent.... 2	Metritis 1	Trismus Nascentium 2
" Inflam. of... 1	" Intermittent.. 1	Metro-Peritonitis ... 2	Unknown..... 3
Bronchitis.....12	" Puerperal.... 2	Necrosis..... 1	Whooping Cough .. 6
Bright's Disease.... 1	" Hectic..... 1	Old Age..... 7	
Cancer, Face..... 1	Gastritis..... 4	Ovarian Tumor..... 1	Total.....392
" Stomach.... 2	Heart, disease 2	Œdema, Pulm..... 2	Stillborn.....36
Cerebritis 4	" Valv. dis.... 1	Paralysis. 5	Under 5 years 147

THE SAINT LOUIS

Medical and Surgical Journal.

JUNE, 1874.

Original Communications.

"POPLITEAL ANEURISM."—A CASE CURED BY "COMPRESSION AND FLEXION."

By JNO. T. HODGEN, M. D., Prof. Anatomy St. Louis Medical College.

Wm. O'Connor, a robust and well-developed man, porter in the carpet establishment of C. B. Bray & Co., while lifting a heavy roll of carpet about the 6th or 8th of October, 1873, felt something give way in his right popliteal space.

Wm. O'Connor presented himself at my office December 4, 1873, with a note from Mr. Bray, asking me to examine and treat him. On examination, I found a painful tumor occupying the upper half of the right popliteal space, and pushing the muscles from the lateral boundaries of the space outward. The tumor was about five inches long, and increased the lateral diameter of the limb at the point of its pressure about two inches, was distinctly pulsating and distended in every direction at each impulse of the heart; no thrill could be felt, no murmur heard. The skin was discolored by iodine, which he said had been prescribed at the City Dispensary. The 4th being Thursday, I directed

him to go to the Health Office and procure a permit to the City Hospital, and to enter that institution on the morning of the 6th, this being Saturday, one of my clinic days.

This direction as to time was given that the patient would then be put in the ward in which my clinical material is placed, and where I would have the direction of the treatment.

At 3 p. m., December 6th, I found the patient at the Hospital. I applied a tourniquet which completely controlled the pulsation, and directed that it be allowed to remain six hours. At my next visit I found that the tourniquet had not been borne so long as I had directed, but the tumor was more firm and the pulsation less marked. The point on the femoral, at the lower angle of Scarpa's triangle, where the pad of the tourniquet had pressed, was so tender, that pressure at this point could not be borne, and a detail of medical students was made, and they were instructed to keep up digital compression at the pubis for six hours. Immediately after the expiration of the six hours the pulsation was much less marked, but it gradually increased until a week later when it was almost as marked as at first. I then resorted to flexion, binding the limb firmly, but this was borne but a short time, the position becoming unbearable; the straps were released and voluntary flexion was maintained as perfectly as the patient could, and when he felt that he must extend the leg, he was directed to make digital compression on the femoral. Under this course the tumor hardened markedly, and on the 18th of December another attempt at digital pressure was made by medical students.

Soon after this it was found that the superficial ves-

sels were decidedly more distinct, and many of the previously small arteries about the knee could be felt distinctly pulsating, indicating that the collateral circulation was being established.

On Wednesday the 31st of December, very trifling pressure would cause pulsation in the tumor to cease. I then adjusted an ordinary truss to the femoral artery: this completely controlled the pulsation and was borne without much pain. The day following the tumor was found quite firm, and on removing the truss the pulsation did not return. The flexion had been irregularly and imperfectly kept up. The tumor continued to diminish in size and to increase in firmness, until the 8th of January, when he left the hospital with instruction to avoid exercise and to guard against complete extension of the limb.

On the 21st of January, the patient visited me at my office, when the tumor was found firm, and not larger than a hen's egg; firm and free from pulsation. He was then permitted to go about his business, but directed to avoid complete extension, and especially any violent effort with this limb.

The tumor in this case was at the upper part of the popliteal artery, and it will be understood that when flexion was made the artery was compressed on the dystal side of the aneurism. I wish to call attention to the advantage of making compression in such a way as to allow coagulation to occur slowly, and also to the advantage of making compression on both sides of an aneurismal sack.

If we are in any case able to cause the complete clotting of the entire mass of the aneurismal contents at once, it is clear that there cannot have been established

a perfect collateral circulation, and that the vitality of the limb below the tumor is endangered, and it is also true that a large clot suddenly formed is much more likely to become decomposed, and to give rise to suppuration than it would be if only thin layers were coagulated one after the other, where deposited. And again the probabilities of the formation of clot is much increased by making compression above and below, while it makes certain that the vessels dilated to convey the blood to the parts beyond the tumor do not aid in feeding the aneurism, as would be the tendency if pressure were made on one side only. It seems then reasonable that in every case, when it is possible, pressure should be made on the arterial trunk both above and beyond the aneurism, and that the period of pressure should not be so protracted, or firm, as to insure complete filling of the sack with clot at once. Indeed, it would be the better practice not to attempt to produce complete stasis in the sack, but only a tardy flow that the coagulation might occur only next the inner wall of the sack, in concentric layers. It will be found also true in practice that as the collateral circulation is established, less pressure will be required to check the pulsation in the tumor, for the blood will find the collateral channels sufficient for its passage and the original paths will be more easily abandoned.

About ten years ago, Mr. Mapother, of Dublin, startled the profession with the results of flexion in the treatment of aneurism, and now it is fully entitled to be regarded as one of the established methods. I would also urge as being true that every failure to secure a complete cure in any single attempt at compression only increases the probabilities of final success; by

aiding to establish new paths for the blood and thus forming coagulation in the sluggish stream passing through the aneurismal tumor. Every failure then in any given case is only an additional guaranty of final success.

REPORT OF A CASE OF PROGRESSIVE MUSCULAR ATROPHY.

Read before the State Medical Association by A. H. CONKWRIGHT, M. D., Sedalia, Mo.

I have recently had under desultory observation, at long intervals, a case of Progressive Muscular Atrophy, to a necessarily imperfect sketch of which I am moved to call the attention of the Society, because, so far as my information extends, such cases are exceedingly infrequent, and because this one seemed to be a typical example, symmetrical and uncomplicated; and *not* because I have anything to add to the sum of our knowledge or ignorance of its pathology; nor have I any positive suggestions to make concerning past methods of treatment; all I undertake is to contribute my mite of testimony to the general negative fund.

The patient who had been under the treatment of another physician during several months for apparent general debility, called at mine and my partner's office about the 15th of last November. He was a farmer by avocation, about 45 years of age, of previous good constitution, no hereditary tendencies, well nourished, and of active and temperate habits.

He had had no sickness of recent date till about the

20th of December, eleven months previously, he had suffered, he said, from an attack of bilious remittent, or, as I thought more probable, typho-malarial fever, confining him irregularly to his bed for about three weeks, and this was succeeded by an attack of dysentery, it, in turn, prostrating him four or five weeks additional.

In his judgment he made a perfect recovery from both seizures, though his wife's opinion was that he did not regain afterward his wonted energy and elasticity.

According to his story his health remained as good as common till during harvesting. About the latter part of June, he observed what he called a weakness situated in the lower part of his bowels, which I inferred was rather in the muscles of the lumbo-sacral region; this sensation continued without considerable aggravation or abatement till about the first of September. Then he began to discover he was unable to rise promptly and with ease from a stooping to the erect attitude, and had become unable to lift a weight higher than the middle of his body, though he was able to raise it *so* high with facility; at the same time there was a visible shrinking, or loss of volume of the muscular substance of the upper portion of the right arm.

When I first examined the case this condition was very obvious in both arms.

Fibrillary tremors or twitchings of the fasciculi which form the muscles were quite conspicuous to the attendant, which however, did not amount to anything like the tremulous agitation of paralysis agitans; the patient himself did not call attention to the fact, if indeed he could be said to have been conscious of its occurrence.

He complained of occasional neuralgic, migratory

pains, and, when out of doors, of great sensitiveness to cold.

In our office he felt sure he had a fever, whilst at the same time, the temperature of the surface was really depressed rather than elevated, and the pulse was not above seventy beats to the minute.

His appetite, digestion and general health were good; functions of the bowels and urinary organs properly performed; the intellectual faculties undisturbed; nor was there any diminution of sensibility in any part of the surface of the body, except a certain sensation of numbness about his arms.

Hitherto the muscles of the lower extremities had not exhibited any appearances of shrinking or flabbiness, but had apparently increased somewhat in size, and *he thought* in power also.

I did not see the case again till the 26th of December, when all the appearances of muscular degeneration, and the debility consequent thereon had progressed very notably. The right arm had first become affected, but the left one having been invaded had wasted the more rapidly.

The lower limbs began to atrophy early in December, and now, on the 26th of December, the man was obliged to keep his bed almost constantly, though he could, with some effort, still walk across the room.

There was yet no very perceptible failure of the general sensibility, nor any of the special senses; appetite declining, digestion continues normal, thoracic and abdominal viscera healthy, though there is now some degree of constipation.

After this visit I did not see him again for three months, that is to say, till the 23rd of March, and I

now observed a marked failure of the circulation, his pulse having now reached ninety-five, and become quite feeble.

Has complained a good deal of restlessness and wakefullness since about the 1st of January. Has never had any localized pain in the chest, or indeed elsewhere, and his respiration continued unaffected till about the 10th of March.

Then his voice became enfeebled and muffled, and now on the 23rd of March, his respiration was labored, except when lying flat on his back, and even in this posture the respiratory act was performed not without some effort and a little apparent discomfort.

There is still no palpable lesion anywhere, save that the muscles of both the upper and lower extremities have gradually emaciated till the limbs are very much reduced in circumference, the muscular substance has lost its natural resiliency, having become inelastic and non-resistent to the touch, the power of locomotion is utterly gone, and any species of voluntary motion is either completely abolished, or restricted within the narrowest limits.

The muscular substance of the thorax, though obviously involved was not so much attenuated in appearance as that of the limbs, whilst the contour of the face, and expression of the countenance were, in all respects, unchanged. The function of deglutition was at this time and henceforth, materially interfered with; the functions of the diaphragm and intercostals became more and more implicated; finally, the thoracic movements were reduced to a slight motion of the lower ribs, till about a week later, he died quietly, apparently, from sheer exhaustion of the powers of the circulatory and respiratory systems—or, "speaking after the man-

ner of men"—because he could no longer get his breath.

Solicitation was made for an autopsy, but the patient's family were a little less than disgusted at the bare suggestion of it.

I may close this undigested summary with the remark that this curious disease was first recognized and described as a distinct affection about twenty years ago, but as I have had no previous practical acquaintance with it, and having had within my reach but a limited amount of the literature connected with the subject (if indeed there be any considerable amount of such literature), I am not familiar with the latest and best established views concerning its exact pathology; and I am not aware that any measures of treatment have been devised calculated to do more than appease the more *unpleasant* symptoms, of which none can be considered very urgent.

In scientific nosology I suppose the disease may be called a *Trophoneurosis*, in which the process of nutrition is vitiated from diminished nervous influence, accompanied by granular, amyloid or fatty degeneration of the muscular fibre.

Whether the cause of this defective innervation be located centrically or eccentrically we may not well determine, but *prima facie* we should judge the former, and the latest post mortem results of which I have seen any account, seem on the whole to favor this view.

In the examinations recorded, the brain, medulla oblongata, heart, liver, kidneys, and spleen, have uniformly been found healthy.

In a certain proportion of the cases inflammatory softening of the spinal cord has been discovered; in a smaller number, amyloid degeneration; and in some, a

remarkable diminution in size, of the anterior roots of the spinal nerves as compared with the posterior; for, whereas, in health, the posterior roots compare with the anterior roots as 3 to 1 in the cervical region and 2 to 1 in the dorsal and lumbar regions, they were found in this disease, to compare as 10 to 1 in the former region, and 5 to 1 in the latter.

It is true that in two-thirds of the cases the spinal cord has been reported healthy, yet in view of the fact that in examining nerve tissue after death, especially unless removed immediately after death and properly prepared, exceeding great caution and consummate skill are necessary to prevent morbid changes from being overlooked, even if they be not essentially occult, it is easy to conceive that in many instances where the cord has been reported healthy, the examination of it may really have been inconclusive.

If now I address to you a word in regard to the treatment of the disease, it will be simply for the purpose of calling your attention to a list of remedies which certainly failed to do any good in this particular case.

Before we saw the patient he had been given strychnia and iron. We gave him a vigorous and systematic course of counter irritation over the spine, on the assumption of probable inflammatory softening; accompanying and following it, at one time and another, somewhat empirically, with biniodide of mercury, iodide and bromide of potash, quinia, oxide of zinc, hyoscyamus, belladonna, chloral hydrate, and electricity. Perhaps I ought to say that the last named agent was not applied under my personal supervision, and I do not know that it was used either very scientifically or persistently.

OPHTHALMOLOGICAL PORTENTS.

By Wm. Dickinson, M. D.

In the development of this subject, I shall attempt to illustrate the significance of pain as a diagnostic sign, presented in two of the gravest affections to which the human eye is subject; namely, glaucoma, and sympathetic ophthalmia: declaring the presence of the former; portending the advent of the latter. From the assemblage of symptoms usually attending these diseases, I elect this *one* for discourse, because—especially in glaucoma, from the fact of its being an early, oft-times the only symptom present, constant or intermittent, existing for a longer or shorter period before surgical aid is sought, and of its being by the patient and his friends denominated "neuralgia,"—the physician, unless on the alert, is inclined to adopt the diagnosis already made, and accordingly forthwith directs his efforts to abate this *symptom*, regarding it as the disease; but which rightly interpreted, is but a *sign* of the most alarming import. Having recently had repeated and deplorable demonstration of the proclivity indicated, I desire by the sequel, to stimulate the members of this association to a higher appreciation of its real import.

I premise, in general, pain is the language of lesion—the out-cry of nature that some pathological condition is present; it is the most common symptom, usually the earliest, by far the most important, and never exists without an adequate cause. Its intensity, however, is by no means always in proportion to the danger threatened; and precisely on account of this disproportion its real significance is liable to escape due appreciation.

Therefore the imperative necessity is imposed upon the faithful physician to be vigilant and quick to apply his keenest powers of discrimination to detect effects and trace them unerringly to their efficient cause. Early recognition of this connection in glaucoma is of the highest importance; for failure thus to appreciate it is fatal to the integrity of the organ, and consequently of vision. If, however, it be duly recognized, and the requisite treatment pursued, this disease, which, till within a few years, was regarded as uncontrollable, will be arrested and vision restored; if not, the critical period, during which alone arrest is possible, passes irrevocably by, and our patient glides hopelessly into blindness, through our neglect or incapacity. The question then, is not merely of the continuance or cessation of pain; the tremendous issues of restored vision or perpetual blindness are involved in the decision. It *may* be, doubtless *is*, often extremely difficult to isolate this symptom and assign to it its true character and value, on account of the mild degree in which it is presented, or on account of its being masked by others concurrent; still certain distinctive characteristics will not be wanting, which, considered singly or collectively, will generally conduct us to a correct diagnosis. Again pain is the resultant, of which a sensitive nerve and an irritating cause acting upon it are the factors. If the cause acts persistently and in sufficient degree, the pain is constant or continues in a constantly diminishing degree, until at last a period arrives when a *tolerance* of it is acquired, and pain, the expression of it, ceases. If, on the other hand, the potential cause be temporary, or intermittent, the pain will correspond in character.

Again, the more acute the affection, the more severe the pain; while if it be chronic in its character, little

or no pain may be experienced, for the component parts will then have had time to adapt themselves to their changed conditions.

Before proceeding to the narrative of cases in illustration of this subject, I beg to review briefly the nature of glaucoma and its more general symptoms.

Modern pathology has demonstrated this disease to consist essentially in a venous hyperæmia, accompanied or succeeded by an inflammatory process extending to all parts of the globe. This condition determines an increase of the fluid contents of the globe, and consequently of the intra-ocular tension. By this is necessarily produced compression of the retina and consequent injury to some or all of its elements. The rods and bulbs are especially apt to suffer; and these changes may extend deeper and involve even the ganglion cells; excavation of the optic disc speedily takes place, followed by a decided tendency to atrophic degeneration of the internal structures. The function of the organ, in this condition, is annihilated. Weeks, months, or even years, may elapse ere the affection shall have passed through these several gradations, and characterize this disease in its more chronic form. In consequence of increased tension of the globe, there results contraction of the field of vision, the peripheral portions of the retina, the first to suffer, being rendered incapable of responding to the stimulus of light. Transient periods of diminished vision and partial or complete restoration may be experienced, also a diminution in the range of accommodation early observed, and presbyopia with varying degrees of rapidity. If the latter appears in a high degree, it constitutes a very suspicious and alarming symptom. A dilated and sluggish pupil is an early and one of the most observable symptoms. Vague

and fugitive pain is often experienced in one or both eyes, but it is not necessarily an early nor a prominent symptom. When one eye only is affected, impaired vision may be the only symptom of which complaint is made, and the patient therefore may not seek advice so long as the other retains its integrity, and when consulted, unless the physician carefully collate, weigh and compare all the symptoms concurrent—both subjective and objective—the real significance of the pain will escape detection.

Again, it sometimes happens that after these premonitory symptoms shall have continued for variable periods, the trigeminus suddenly and loudly speaks: without obvious cause the patient is seized with sudden and severe pain in and around the eye, extending over the forehead even to the vertex, to the temple and down the corresponding side of the nose. This is the stage of acute inflammatory glaucoma, supervening upon the antecedent symptoms in the majority (75 per cent.) of all the cases. Pain in the globe is now accompanied by the rapid extinction of vision, and often attended by vomiting. Even now these symptoms are very frequently regarded as the effects of "neuralgia;" and to this *symptom* exalted to the dignity of a *disease* the entire affection is referred; in other words, that which is the effect is transmuted into the efficient cause, and professional ingenuity is expended in efforts for the relief of the pain—"neuralgia"—while the grand, central, potential cause, though vocal by so many and so urgent symptoms, is overlooked and is left to run its career unrestrained, inevitably producing at last extinction of vision. In some instances, a few days, and even hours, afford sufficient time for the disease to pass through these successive stages.

The invasion of this disease is sometimes sudden, appearing without any premonitory indications, like a thunder-bolt from a serene sky.

I now proceed to a recital of cases transcribed from my "case book," in illustration of the several observations hitherto made.

"Mrs. A——, 54 years of age, narrates substantially as follows, namely: My daughter had just expired. Overwhelmed with grief and exhausted by fatigue and watching, I retired for a little rest, and had fallen asleep. Not long after I was suddenly awaked by intense 'neuralgia' in the right eye. (Observe her designation, 'neuralgia.') A physician was called for my relief, who administered palliatives alone. My eyes soon became closed, and after ten days the neuralgia and photophobia had so far diminished as to allow me to open my eyes. I then discovered that vision in the right eye was greatly impaired. This impairment constantly increased, and in six weeks vision was entirely annihilated. The left eye was soon after similarly attacked, and visited with like results." The original attack had occurred nineteen (19) months before she consulted me. Three months prior to this interview, she had submitted to the operation of iridectomy on the right eye, but at a period too late for benefit. Cataract in it had also supervened, and only quantitative perception of light was retained. Pupils of both were widely dilated. The dioptric media of the left were clouded to such a degree as to prevent perception of the details of the fundus by the ophthalmoscope. Incurable blindness of course was the result. It is evident that her physician had failed to recognize the gravity of the disease from which she suffered, and of which pain was but the ex-

pression, the *sign;* for alleviation of it was the sole objective point of treatment, whereas, had he duly appreciated and rightly interpreted its real significance, and timely employed the only surgical methods at present authorized, this lady would now undoubtedly be in the enjoyment of at least *useful* vision.

In the recital of another case, I trust I do not betray the confidence reposed by epistolary correspondence. A physician writes respecting a lady of middle age: "My patient has suffered from 'neuralgia' in her eyes and head, with remissions of longer or shorter periods, for the space of six years. Meanwhile, vision has steadily declined. To combat the symptoms I have administered strychnine alone, and in combination with bark and iron continued for long periods; quinine also alone and in conjunction with morphine. The 'neuralgia' has been more intense during the last three years. She has never suffered from acute inflammation of her eyes; "but," he adds, "has suffered from evident weakness, the result of neuralgia; and loss of vision from the effects of neuralgia." In this case a grave error in diagnosis was undoubtedly committed by the practitioner in attendance, a gentleman, as I suppose of at least average intelligence and acquirements, notwithstanding the real nature of the affection was declared, as it seems to me, in such unequivocal terms. Now had iridectomy been resorted to some years since, doubtless the usual results would have been attained; but at this late day, it is doubtful whether the operation early indicated would be followed by any benefit whatever.

[To be Continued.]

PROGRESS OF SURGERY.

Read before the Missouri State Medical Society by JOHN W. TRADER, M. D.

If our duty ceased with the mere detail of the absolute and mediate progress of surgery within the last twelve months, there would be no occasion for detaining you to-night. The progress of all science is slow, and new ideas, like the fresh minted coins, are not often seen in the busy fluctuating affairs of men. But whether we may have new truths to present, or old ones to resurrect, if the result is beneficial to the race, we will have accomplished all the practical good likely to be derived from the progress of any science. We claim, in some departments of philosophy, great scientific advancement, even in the space of one year. If the researches of a Tyndal, Agassiz and Proctor have developed new truths out of the familiar objects around us, other minds, no less active, have grappled with problems as abstruse, and our own profession can boast an advancement no less prolific of good in general results.

We shall divide our subject into, first, radical changes in regard to operative procedures, and secondly, radical changes in regard to views held in pathological anatomy and histology.

There have been no changes or advancement in surgical science in the last decade, calculated to arrest the attention of the profession more than the plan announced by Carl Esmarch, of Denmark, to insure bloodless operations. And whatever may be said concerning the antiquity of the idea, certain it is, that no one has ever succeeded in establishing for it a place in the

list of surgical procedures until now. Stroymeyer and Langenbeck, it is said, practiced it twenty years ago, and more recently an Italian surgeon named Silvestri; yet our literature fails to give anything more than a passing notice.

"The plan recently introduced by Esmarch for preventing hemorrhage during operations, and introduced into England by Mr. McCormack, consists in an elastic bandage some two inches wide and four or five yards long, that is applied to the limb beginning at the toes or fingers and extending beyond the point of operation; sufficient tension is used to completely compress the blood vessels. A strong rubber band or tube is now firmly applied immediately above the bandage and securely fastened; the bandage is then removed and the limb may now be operated upon without the loss of blood. Upon this plan many operations have been performed in the London hospitals—including excisions of the knee and elbow joints, amputations and the removal of dead bone; and in one case amputation was performed for gangrene of the foot, the precaution being taken of beginning the application of the elastic bandage several inches above the mortified part. No ill effects of any kind have hitherto been observed from the use of this contrivance. Although the duration of the operation has varied from a few minutes to a half an hour, and even more, during the whole of which time the circulation has been completely arrested, no evidence has been afforded of the formation of emboli or thrombi in any of the cases." [*Abstract from London Lancet.*] It is not advisable to apply the bandage over suppurating or inflamed surfaces when we have reason to suspect the presence of septic properties as

we thereby risk, not only the danger of blood poisoning, but also the possibility of detaching small clots from the inflamed blood vessels producing embolism, or destructive inflammation of the part.

This plan has been tried by numerous surgeons and universally well spoken of and will, no doubt, be generally adopted in all operations of the extremities, in patients exsanguined and those bearing the loss of blood badly. Billroth tried it in fourteen cases; two extensive operations on necrosis of tibia; three resections and extirpations of bone in the foot; two resections of the elbow joint; two Chopart's amputations; four amputations of the thigh, and one disarticulation of the hip joint. "Eleven of these cases were completely cured," says the report, "or approaching cure when the author wrote. Three cases died; the case of disarticulation of the femur and two amputations of the thigh."

Dr. Menzel, of Trieste, reports a successful removal of a large nodulated tumor on the inside of the upper part of the thigh, in a patient sixty-five years old, in which Esmarch's method was adopted. The femoral artery and vein ran through its centre. The artery and vein were tied at both ends of the tumor which was then removed, also a smaller tumor adhering to the periosteum. The operation lasted three-quarters of an hour and not a drop of blood was lost.

Professor Esmarch had employed the plan suggested by himself, in eighty-seven cases up to last August. "Of these, twenty-one were cases of amputation and disarticulation, eight were cases of excision, thirteen of removal of necrosed bone, five of operation for the removal of tumors. Of the eighty-seven patients, four only died. The amputation wounds generally healed

by the first intention, with scarcely any traumatic fever. In no instance have there been any indications of local disturbance of the circulation as the result of the compression."

Dr. Eve, of Nashville, Tennessee, reports four cases—two amputations of the thigh, one for necrosed tibia, and one for the removal of large sequestra from the tibia; in all of which Esmarch's method for the prevention of hemorrhage was adopted. The success was complete; all the cases recovering. The Doctor is quite enthusiastic in his support of this new method, and says, in the sequel of his report, that "Esmarch's bloodless operation is a decided success, and marks an advance step in practical surgery."

Five successful cases of amputation are reported from Bellevue Hospital—four amputations of the leg, and one of the arm. Esmarch's method was adopted in all the cases, and all made a speedy recovery. Not only is the loss of blood prevented by the above method, but the surgeon is better able to see and detect the extent of the injury, and in the case of necrosis, to minutely examine the diseased bone without being blinded by the continuous flow of blood, and necessarily compelled to rely in a great measure upon the sense of touch.

The transfusion of blood, from one person to another, is receiving a new impulse. Prof. Fordyce Barker, at a stated meeting of the New York Academy of Medicine, gives a detailed account of this operation from the days of Sir Christopher Wren to the present time, and from the success attending the operation, taking into account the imperfect mechanism employed, and the fact that the knowledge of thrombus and em-

bolism did not exist, we might say that the results obtained would certainly justify further effort in this field of experiment. It appears that arterial blood, passed from one animal to another by direct connection, always gave favorable results. Now, if some system could be adopted in which blood might be made to pass into the veins of an exsanguined and exhausted system, without in any way coming in contact with the external air or gases, a favorable result, in cases not altogether hopeless, might universally ensue.

In the 57 cases tabulated by Dr. Martin, in 1861, 45 recovered. In all these cases transfusion was resorted to on account of post-partum hemorrhage.

Since this time, Prof. Nussbaum, of Munich, performed the operation for exhaustion from disease, with recovery.

Prof. Esmarch, in the same year, performed the operation in a case of profuse hemorrhage after amputation, using calf's blood, but the operation was unsuccessful.

The same year, Dr. Flint performed the operation in New Orleans, but without complete success. In 1862, the operation was performed in Stuttgart for an alarming hemorrhage, following abortion, with success. In 1868, J. Braxton Hicks, in Guy's Hospital Reports, proposed, in order to prevent the tendency to coagulation, to mix with the blood a solution of phosphate of soda—three grains to a pint of water, and of this solution, one part to three of blood was employed. Six cases were operated upon, all unsuccessfully. In 1871, Belina reported seven cases of transfusion of defibrinated blood for flooding after abortion, all seven cases recovering. Dr. Higginson, of Liverpool, reported 13

cases, ten in obstetric practice. The blood was not defibrinated. Four recoveries followed the operation. Dr. Ringland, of Dublin, reported one successful case. Six cases are reported in New York City, all unsuccessful.

Of the above 37 cases last mentioned, 14 recovered. We must not fail to take into consideration the fact that many of the above cases, or probably a large majority of them, were hopeless.

The simplest, and at the same time the most efficient, instrument introduced for the operation of transfusion, is that of Dr. Aveling's, of Chelsea Hospital (referred to in Dr. Barker's essay above quoted), and which is fully described and illustrated in the April number of the New York *Medical Record*, page 190.

The subject of water dressing is also receiving renewed attention, and deservedly too, from the profession throughout the country. The practice, so highly recommended some years ago, of cold water irrigation as a surgical dressing, has been fairly tested by the American surgeons during our late civil war. When judiciously applied, all who have used it in gun-shot and other injuries, can testify to its great value. But the plan suggested now is not cold water irrigation, but warm water immersion. As illustrative of the method alluded to, I will give a typical case taken from a communication of Prof. Frank H. Hamilton to the Richmond and Louisville *Medical Journal*. In Case I, in the table, "excision of joint of great toe for valgus was performed, removing three-quarters of an inch of the distal end of the metatarsal bone. * * * The wound was quite large, and the incisions laid open the bottom of the foot. * * * No dressings were ap-

plied, and soon after the operation was completed, the foot was placed in the water-bath at a temperature of about 90° F. The bath was continued, with only occasional interruptions at night, fourteen days, and from this time, and whenever the foot was taken from the bath, the wound was kept wet with linen cloths saturated with water and overlaid with oil-silk. No attempt was ever made to draw the parts together, or to hasten the granulations by other means than the use of water. During the progress of the case, it was observed that the foot became gradually œdematous, but the œdema was not accompanied with pain, tenderness, redness, or other signs of inflammation. The œdema declined rapidly after removal from the bath; the toe gradually and spontaneously took its natural position, and at the end of four or five weeks the wound was closed, the toe still retaining the power of flexion and extension, and the deformity being entirely removed." Nine cases with favorable results are reported, in all of which the warm bath or warm fomentations were used, and "in no case where this plan was adopted was there any acute phlegmonous inflammation, or gangrene extending beyond the parts primarily affected, or did pyæmia or septicæmia occur." In one case only did suppuration take place, and that was after the limb had been removed from the bath. From the results attending these cases, we are certainly justified in using warm water dressings in severe injuries and after surgical operations. I might add, from my own experience and observation, that I have known great good to result from a change from cold to warm applications, and all of us are familiar with the power of the warm bran and yeast poultice in subduing inflammatory action, and in arresting traumatic gangrene.

Within the last year a plan has been suggested for the removal of tumors and for the cure of fistula in ano, etc., by Mr. Dittel, of Vienna. The method as introduced into England by Sir Henry Thompson consists of an elastic ligature. The mode of procedure is thus detailed in a case operated upon in the University College Hospital. "The patient was a robust and healthy looking woman. Chloroform having been administered, Sir Henry drew the mamma forward from off the pectoral muscle and then, with a large, strong, and slightly curved Liston's needle, transfixed the submammary tissue. Through the eye, near the point of the needle, a long piece of very elastic India rubber tubing, about the thickness of a stout whipcord, together with a large silk ligature, was passed. The elastic ligature was then divided, and the needle withdrawn. Each half of the elastic ligature was tied very tightly, so as to embrace one half of the mamma, inclusive of the skin. In fastening the elastic ligature a piece of silk ligature was placed at right angles to the elastic between the skin and the knot and while the single knot was tightly drawn, the silk was tied around it to prevent its slipping. A double knot was then made, and this was secured by again tying the silk around the elastic. The long silk which had been passed with the elastic tubing through the submammary tissues was then removed. The purpose of passing this was precautionary, in order that another piece of elastic might be drawn along the same track in the event of either half of that which was first passed breaking. Another precaution very necessary to be taken is to hold the elastic firmly at the time of dividing it, and while withdrawing the needle, otherwise the contractility

of the tubing will cause its disappearance through the track made by the needle. The time likely to ensue before the entire separation of the breast, is eight or nine days. The pain excited during any portion of this time is remarkably slight, sometimes a little pain is suffered for a day or two. In the case of the patient now referred to, there was no pain after the first twenty minutes from the time of recovery from the chloroform, and the suffering during this brief period was not at all severe."

Prof. Dittel claims to have operated in this way over 200 times, and in some instances in the removal of limbs. The advantages claimed for the elastic ligature are, (1) that it does away with the necessity of a cutting operation, and all the horror and distress which the idea of such excites in the minds of many patients; and (2) it is attended by less risk of pyæmia.

In regard to the value of this procedure there are conflicting opinions. In relieving fistula in ano, and in some forms of hemorrhoids, it will certainly be of much service. But in removing large masses, or in amputations, it is not likely to ever be brought into general use. Mr. John Erichsen, in a letter to the *Medical Times and Gazette*, characterises the use of Prof. Dittel's elastic ligature as simply a return to medieval barbarism.

Another idea being elaborated within the last year, is that of removing fluids and gases from the shut cavities by pneumatic aspiration. It has generally been considered unsafe to open cavities, particularly those lined by serous membranes, and in effusions into the pleural cavity, when every symptom tells us that the rapidly accumulating fluid is impinging upon important viscera

yet we hesitate to operate from the fact that we dread to perform paracentesis upon the thorax.

In the perfected apparatus of Dr. Dieulafoy we have a means of relieving these intrathroracic effusions by an operation simple and, at the same time, comparatively harmless. Not only the pleural cavity, but the pericardium, the bladder, the stomach, and the intestines, may be relieved in the same way. In strangulated hernia we may be enabled to reduce the tumor, after the ordinary means fail, by withdrawing the fluid from the sack by aspiration, or the accumulating gases from the bowel, relieving the tension and stricture caused thereby. The plan of the instrument is simple and easy of construction, yet I would not advise the improvising of a Davidson syringe, as some do, from the fact that the valves are always defective and may allow the escape of fluid and air back as well as forth. The air pump of the common cupping apparatus will better answer the purpose, and the point of a hypodermic syringe, with a foot of small size elastic tubing, will enable any one to meet an emergency. The best valve is oil-silk or thin rubber firmly bound to the valve seat by a small silk ligature.

In the second division of the subject, I should have been pleased to more fully enter into the details of pathological anatomy, but my time will only permit me to note the direction of the advances made, and being made, in this very interesting science. It is upon our knowledge in this branch of physic that we must at last rely for all important progress in surgery, and in fact, all diseased action.

What the telescope is doing to advance our knowledge of astronomy—the microscope is doing in pathol-

ogy. By it we are gradually becoming familiar with the occult laws or forces relating to progressive and retrograde metamorphosis. By it the molecule and its atom may be studied and their relation to, and power over all organized life, measurably comprehended.

Histology is comparatively young. Three hundred years backward witnessed its birth. Ideas came forward in their crude state, views regarding diseased action were vague and constantly changing. Now new truths are being brought to light and old systems followed out to their logical and natural sequence. But a few years ago we hailed with delight the apparently stable doctrine of cellular pathology, and looked upon the histological discoveries of this investigator with as much interest as ever attached to scientific discovery. No man labored more faithfully or effectually than Virchow, to overthrow the doctrine of dyscrasia that had entangled so many. "But now that the brilliant superstructure of the cellular pathology has been shaken to its very foundation," as asserted by Mr. Woodward in his lecture on cancerous tumors, "nevertheless, we cannot cease to look upon the man and his works with admiration and respect." And, although not himself arriving at truth, he unquestionably traveled in the right direction; and the interest he has so successfully awakened, not only in Europe, but in our own country, may prove the *prodromus* that will lead us on to its certain discovery.

The pathology of morbid growths, for instance, becomes of peculiar and practical interest to our profession, when we consider the alarming fatality produced by them, and the little known of their pathological structure and relation to surrounding parts. The cen-

sus of 1870 gives us 2,301 deaths from cancer in males, and 3,923 in females, making a total of 6,224 annually in the United States alone. The time may not yet have "arrived for any one to tell why cancer originated or how they can be prevented or cured," yet the time is certainly opportune for us to bend our energies in this direction, and contribute something, if possible, to aid in the solution of this difficult problem. Our duties do not stop here. The whole field of pathological research lies before us, and all the collateral sciences are accompanying us hither or else bidding us on to desirable goals. Mechanism is ready with her crafty devices. The experimenters in the natural sciences are all ready for an interchange of thought. Air, earth and sky extends to us prolific aid, and—

> "No pent up systems should contract our powers,
> While the whole boundless universe is ours."

I cannot better conclude this essay than by adopting the language of one of the patriarchs of medicine, who was anxious, as every true lover of our art, that surgery should be rescued from the empiric whose only attraction or commendation was the vaunted *eclat* of his procedures when compromising the very life, perhaps, of the being entrusted to his care. I give this closing paragraph, not only because it accords with my own views, but because it accords also with the most advanced interest of my profession, and the feelings of suffering humanity.

Says Prof. Godman: "The difference between a surgeon and a mere operator may be estimated by contrasting them. The *surgeon* inquires into the causes, and removes the consequences of constitutional or local disease; the *operator* inquires into the willingness of

nis patient to submit, and resorts to the knife. The *surgeon* relies on the restoration of the healthy actions by regimen and medicine; the *operator* relies on himself, and cuts off the diseased part. The *surgeon*, reflecting on the comfort and feeling of his patient, uniformly endeavors to save him from pain and deformity; the *operator* considers his own immediate advantage and the notoriety he may acquire, regardless of other considerations. The *surgeon* reluctantly decides upon the employment of instruments; the *operator* delays no longer than to give his knife a keen edge. The surgeon is governed by the principles of the science; the operator most generally by the principle of interest. One is distinguished by the numbers he has saved from mutilation and restored to usefulness; the other by the number of cripples he has successfully made. The surgeon is an honor to his profession, and a benefactor of mankind; the mere operator renders the profession odious, and is one of the greatest curses to which mankind, among their manifold miseries, are exposed."

Sedalia, Mo.

POST-PARTUM HEMORRHAGE.

By J. M. FOREMAN, M. D., Jonesburg, Mo.

It must be admitted that pregnancy and labor require for their due fulfillment an extraordinary supply of nerve force, which implies a corresponding organic development of the spinal cord.

The disturbances in nutrition occasioned by preg-

nancy almost always entail some alteration of the blood, which increases the irritability of the nervous centres, and favors the evocation of any latent diathesis, hemorrhagic or otherwise.

It happens that some women who have feeble pains at *long intervals*, the effusion of blood is considerable; and a large quantity is found to follow or precede the expulsion of the child, evidently the result of hemorrhage during the intervals, yet detained behind the presenting part until the delivery of the child is effected, when it rushes forth with violence.

In a majority of labors the placenta is quite detached from the womb by the time the child has escaped from the vagina, and the separation takes place frequently much earlier; it follows therefore, *that effusion may go on rapidly* after the child has escaped. A partially detached placenta is more to be dreaded than one entirely separated, particularly if the membranes are adherent around the lower portion of the uterus and the edge of one side becomes detached; the effusion of blood in such cases is so great as to push down the inverted placenta through the os into the vagina, plugging up the os and permitting the womb to fill.

In many instances the womb is passive for some time *after labor*, and the placental superficies being exposed, blood escapes into, fills, and distends it; the woman faints and dies, without any one suspecting that she has flooded at all. The blood as it escapes from the uterine walls would always flow from the vagina if there were no opposing forces; the resistance can nearly always be found to be the formation of a firm clot of blood at the os uteri acting like a tampon. If the womb loses its irritability, or lacks nerve force, it offers no resistance to

the fluid which is being poured into its cavity; and being sealed up by this coagulum at its mouth must distend more and more, and with a rapidity that increases as the placental surface grows larger.

The principle of treatment in such cases is invariably the same: empty the cavity as quickly as possible consistent with prudence, whether the hemorrhage occurs after delivery or before it.

If syncope intervenes do not wait until the patient returns to consciousness, but proceed without delay to empty the womb of its coagula.

The best and most reliable instrument is the hand, which should be introduced into the vagina, and womb if necessary, to break up the clot and turn it out. Sometimes this operation must be repeated. If the placenta is present bring it away, taking great care to detach every portion of it (the retention of hardened coagula liable to decomposition may prove a source of danger hitherto unsuspected; with a knowledge of the fact, it would be our duty to secure their expulsion as soon as possible); the womb contracts and condenses its walls, and the hemorrhage ceases; should it not do so, however, *lumps of ice* introduced into the vagina and womb will generally occasion it. Cold applications and frictions over the hypogastrium aid materially. The hypodermic injection of the extract of ergot in one-half drachm doses, repeated as often as necessary until the specific effects of the remedy are obtained, also has its advocates.

The horizontal posture should be maintained in all cases; her drinks should be cold, and varied to suit her taste; the compress and bandage should be applied as soon as the womb is emptied of its contents, and, as

there is always great loss of muscular power from constitutional and local causes, *stimulants* are advisable. Such attacks ought frequently to be foreseen in the state of the pulse and pre-disposition to hemorrhage in the last months of pregnancy, also by experience in previous labors, and should be obviated, if possible, by appropriate treatment.

Unusual frequency and feebleness of the pulse, paleness of the surface, yawning and sighing, weakness, sometimes a dull pain in the womb, sudden increase of the size and tension of the organ, extremities more or less cold, *dimness of vision, disposition to somnolency* and *syncope*, when any such phenomena occur in women who have *sharp, quick*, or *feeble pains, subsiding suddenly, with long intervals*, they may be regarded as pathognomonic.

A well-contracted condensed womb cannot bleed, and we know of no remedy that offers so much in this respect as *ergot*, given in the last stages of labor. If such remedies as have been indicated fail in attaining the desired result, it is because of the deficiency of nerve-force; in this dilemma we must have recourse to styptics, and of this class we vastly prefer perchloride of iron, it will coagulate the blood in the mouths of the open vessels, and corrugate the inner surface of the womb. Cold, ergot and compression, cannot be trusted if they fail to act quickly, the perchloride can be used conveniently in such emergencies by saturating a sponge of suitable size, and leaving it in the uterus with a string attached, which mode is preferable to any form of injection. Other preparations of iron, such as persulphate and pernitrate, may be used in the same way. Galvanism has been used with good results. In all

such cases where the loss of blood has been great, or in those conditions pathological or otherwise, in which the blood in quantity or quality is so altered as to be unfit to perform its physiological duties, transfusion should be resorted to without hesitation.

The parturient woman requires a regimen suited to her particular condition, that is to say, no absolute rule can be laid down applicable to all women without exception. It should be nutritious in quality, small in quantity, frequently repeated, and varied in kind and form. Monotony is death. The richest viands, when continued from day to day, become unpalatable and even nauseous. A change of diet is indispensable to a proper relish for food and the maintainance of the appetite in health, how much more so on a bed of sickness.

GALVANO-CAUTERY FOR THE MOUTH OF THE WOMB.

By DAVID PRINCE, M. D., Jacksonville, Illinois.

The translation of a lecture by Prof. R. Olshausen, of Halle, published in the May number of this JOURNAL, tempts one to say something of what may be said upon this subject.

The particular point urged in the lecture as original, is the removal from the mouth of the womb of a wedge-shaped piece of tissue, embracing the whole or a part of an ulcer or of tissue otherwise diseased.

Speaking of the transverse incision, as practiced by Sims and Emmet, he recommends, by preference, the incision of the anterior lip in its middle part, or the excision "of a piece" of it. "A cuneiform excision, whereby the point of the cut reaches near the insertion of the portio vaginalis, is as easy to keep open as it is to make the operation itself."

He speaks of the employment of the actual cautery, both as an original application, and also as an agent to be employed after the knife. The complete amputation of the lower portion of the cervix does not come within the scope of the lecture of Prof. Olshausen, but for our present purpose it is convenient to refer to it. The knife followed the cautery historically, and as we shall see before the close of this communication, the cautery is following the knife.

In an article copied from the *Annales Therapeutiques*, April, 1845, copied into the *American Journal of Medical Sciences*, October, 1845, page 509, M. Jobert is represented as saying, in reference to the classification of the lesions of the mouth of the uterus into ulcerations and hypertrophies, "The actual cautery is used for both species." After speaking of the use of nitrate of silver, and acid nitrate of mercury, he says in reference to the more marked cases, the actual cautery may be used from the very commencement. 'The actual cautery is used for ulcers by *reverberation,* or which is most general, by its direct application to the ulcers, so as to produce an eschar more or less deep; it may be repeated in the course of ten or fifteen days.

The cure is generally accomplished in the course of of two, three, or four months. There is melioration in regard to the pain and leucorrhœa during the first

week. It seems probable that concentrated heat causes such a modification of the diseased tissues as to dispose them to a healing process.

In 1865, Dr. J. Henry Bennet advocated nitrate of silver for mild cases; acid nitrate of mercury for cases more severe, and the actual cautery and potassa fusa, for cases of extreme obstinacy.

Dr. J. Marion Sims, (Uterine Surgery, p. 205) says, that "Amputation of the cervix uteri belongs essentially to French surgery. It was a frequent operation in the hands of Lisfranc. He amputated the cervix in ninety-seven cases, and lost but two patients."

Huguier brought the operation more prominently before the profession.

Dr. Sims became favorable to the employment of the ecrasseur until a case of perforation of the peritoneum frightened him from its further use.

In 1859, he commenced to amputate with scissors, first slitting the cervix open transversely, cutting off one half, waiting two or three months, and then cutting off the other half; finally, adopting the plan of cutting off the whole circumference of the cervix at one sitting, and covering the incised surface by drawing the mucous membrane over it by means of sutures.

The good effects of the removal of the whole or a portion of the circumference of a diseased uterine cervix, are extolled by Dr. T. G. Thomas, in his "Diseases of Women," Third Edition, p. 301, "It is a well-ascertained fact, that when a superficial layer of an organ which is affected by hypertrophy is cut off, a marked tendency to diminution in the bulk of the remaining tissue shows itself."

He makes comparison with the tonsils, which shrivel up after a very superficial layer has been removed.

Dr. Thomas credits the plan of amputation to Dr. Sims, though Sims himself ascribes to it a French origin.

The beneficial effects of the removal of the diseased tissue in whole or in part, have been so long established that the remaining questions are chiefly of methods.

The discovery of the heating property of galvanism, and its introduction into surgery, add another to the resources previously known. It is more manageable and less offensive to a patient than actual cautery, for the heat can be applied in a very fine wire, heated after it has been placed in position.

It obviates the inconvenience of hemorrhage, which, in so vascular a tissue as that of the uterus, may be very troublesome, and the anticipation of it may make the operator timid. It leaves a wound not likely to unite by the first intention, nor much disposed to sanious absorption.

Dr. J. Byrne, in his book on "Electric Cautery in Uterine Surgery," page 6, expresses surprise that so few surgeons, even among gynæcologists, should have adopted this expedient, though twenty years before the profession.

Two difficulties have stood in the way of the general introduction of this agent. One is the difficulty of keeping a suitable battery in working order, and the other is the necessarily slow invention of the proper appliances with which to carry the heated wire to the part to be destroyed or removed.

Dr. Byrne has given a great advance to the art by the publication of his book, already referred to.

The removal of a complete circle of an enlarged cervix requires simply a loop of wire in a proper holder, but the removal of a crescent, or a wedge-shaped piece, requires an instrument different from any hitherto presented to the profession.

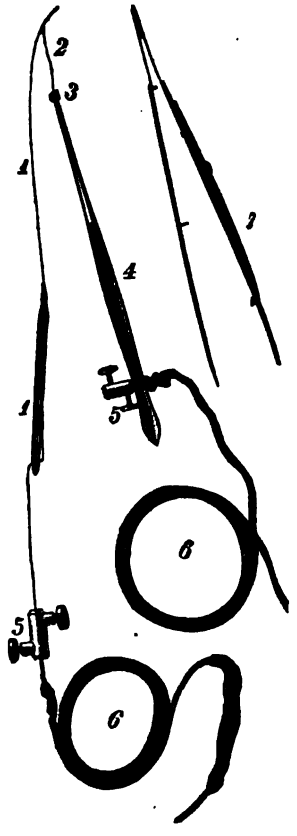
It is the chief object of this communication to present to the profession an apparatus which can easily enable the surgeon to make by the heated wire a simple incision, as practiced by Sims with the knife, for stricture and angularity of the uterine canal, and as easily to remove a piece of the os, anterior or posterior, as advocated by Prof. Olshausen.

It is not necessary here to discuss the origin or nature of these degenerations, whether the result of inflammation after the older gynæcologists, or after Thomas and other cotemporaries, the result of "diffuse interstitial hypertrophy and areolar hyperplasia."

The degeneration is intractable in its nature, and though held in check by nitrate of silver, carbolic acid, chromic acid, or removed in thin slices by acid nitrate of mercury, caustic potash or caustic soda, the underlying tissue grows again, so that in a short time the patient is as bad as before.

For the removal of a section of the cervix, as described by Olshausen by means of the knife, the device illustrated in this wood-cut has been contrived.

APPARATUS FOR LINEAR CAUTERY OF THE OS UTERI AND FOR THE REMOVAL OF CRESCENTIC SECTIONS. (DRAWN ¼ NATURAL SIZE.)



(1-1) An ordinary small sized uterine probe, with an orifice drilled near the distal end.

(2) A platinum wire inserted into the orifice in the probe above and attached to a leaden ball or shot (4) at the lower end.

(4) Forceps with which to grasp the wire at its termination in the shot, and to guide it in straight or curved lines.

(7) Side view of the forceps.

(5-5) Double connexions for convenience in attaching the electrodes to the forceps and probe.

(6) Electrodes which lie in coils, ready to be connected with a battery.

Self-fastening forceps like those commonly employed in the operation for vesico-vaginal fistula, are very convenient instruments for holding and conducting the wire in a great variety of applications. The expense incurred in the purchase of most of the instruments sold in high-priced cases, is worse than wasted, because the purchaser has to learn by disappointments, the impracticability of employing them.

This communication is not intended to be other than fragmentary. Its object is to call attention to an expedient which surpasses caustic applications in certainty, speed, and safety; which surpasses the knife in safety, while it is equal in certainty, and only a little behind in speed, while both the dread and the danger of hemorrhage are avoided.

CASE OF POISONING BY ATROPIA.

By T. H. Newland, M. D., St. Louis, Mo.

On March 27, 1871, Mrs. D——, aged 48 years, took by accident one and one-fourth grains (1¼ gr.) of *atropia*; when called to see her one hour after, I found the following symptoms: pupils largely dilated; pulse 40 per minute; surface of the body cold, and covered

with perspiration; delirium; tingling sensations in the hands and feet; tenesmus; paroxysms of laughing and crying; in an hour more profound coma.

Treatment: emetic of sulphate of zinc xxx grains in warm water, followed by copious draughts of warm water; after the contents of the stomach were expelled, we gave one-fourth of a grain of morphia every twenty minutes, and two grains of carb. ammonia every ten minutes for two hours, when the normal temperature was regained; pulse 60; pupils contracting. The medicine was now suspended and half a drachm of aromatic spirits ammonia every half hour substituted, until ten o'clock p. m., when the patient had fully recovered from the effects of the poison. Believing this plan of treatment worthy of further trial it is submitted for publication.

Correspondence.

Messrs. Editors:

The District Medical Society of Central Illinois met in the City of Pana, Illinois, on the 28th of April. The counties of Montgomery, Christian, Shelby, Fayette and Marion were represented. An organization was effected by the adoption of a Constitution and By-Laws, and election of the following officers for the ensuing year:

President, H. H. Hood, M. D., of Taylorville; Vice Presidents, J. N. Fink, M. D., of Hillsboro, and H. H. Dening, M. D., of Pana; L. B. Stater, M. D., of Taylorville, Treasurer; and E. E. Waggoner, M. D., of Shelbyville, Secretary; C. V. Rockwell, M. D., of Taylorville, and J. D. Bennett, M. D., of Assump-

tion, were appointed delegates to the next meeting of the Illinois State Medical Society; C. V. Rockwell, M. D., of Taylorville, and R. E. Beach, M. D., of Potoka, were appointed delegates to the next meeting of the American Medical Association, to be held June 2nd, at Detroit, Michigan. This Society organizes with thirty-one members, certainly a very flattering prospect for a successful organization. The next meeting will be held at Pana, Ills., on the second Tuesday in July next.

E. E. WAGGONER, *Secretary.*

LIBERTYVILLE, Mo., April 28th, 1874.

Messrs. Editors:

I desire to call the attention of the Alumni of the St. Louis Medical College to the propriety of contributing means for the purpose of erecting a suitable monument to the memory of the lamented, but illustrious and immortal Prof. Charles A. Pope.

Will not each medical student who has the honor of having his distinguished name appended to his *Diploma*, give a small sum for such a noble and laudable purpose? If such were the case, in my opinion, a beautiful and substantial monument could be erected over his last resting place in Bellefontaine Cemetery, in a short time, and with comparatively little expense to each subscriber. The money could be forwarded to the President or Secretary of the Alumni Association of the College, and in *doing* so, the *names* of his former students would be enrolled as witnesses to the noble virtues, irreproachable character, and sterling integrity of the man, who, as an accomplished gentleman and skillful surgeon, stood second to *none* in the valley of the Mississippi.

I wish only to add that he was the friend of the medical student, and his friendship was the same in adversity as in prosperity. If any one of the Alumni has any suggestions to make in furtherance of this movement, I would be highly gratified to hear from such, and if a *better* plan can be named let it be made known through the columns of your esteemed JOURNAL.

Respectfully, T. A. WINN, M. D.

Editors JOURNAL:

Under the head of "Proceedings," for March, I unintentionally missed *the point* in condensing an article read before the Society. I cheerfully correct the error by furnishing the article entire. CLAYTON KEITH, M. D.

THE TUNING-FORK AS A MEANS OF DIAGNOSING PERFECTION OF THE MEMBRANA TYMPANI.

By THOS. F. RUMBOLD, M. D.

During the month of April, 1869, I suffered rupture of the tympanic membrane by a severe explosion that occurred in making oxygen gas with the sulphuret of antimony, instead of peroxide of manganese, by mistake. By this accident I became acquainted with a phenomenon which is of great value in diagnosing rupture or perforation of the membrana tympani. In the examination of aural affections,—explaning how I wished patients to observe the well-known variations of sound of the tuning-fork, I had often applied this routine to myself. After recovery, except laceration of the membrane, and in making repetition of this application to myself, I was greatly surprised that by *closure of the auditory meatus* by pressure on the tragus, I could not detect the variation that I had frequently heard previously to the injury.

Very naturally, on the same day I tried this method of examination on two patients then under treatment, and both of whom I knew by ocular inspection to have perforation of the drum-head, *and found the same results.* I then in like manner examined every other patient, and in *no instance* found that in the ear having a perforated membrane, did the sound of the tuning-fork increase by closure of the auditory meatus. With each of eight membranæ tympani that were operated upon for the insertion of the "Politzer eyelet" to increase the hearing, the sound of the fork was increased by stoppage of the auditory canal previous to the perforation, *but not after it.* In six of these cases, after they were closed by granulation, I found that pressure on the tragus again caused increase of sound of the tuning-fork. With each of three membranæ tympani having traumatic opening, closure of the meatus did not increase the sound of

the tuning-fork, but after the perforation had healed, sound was increased by this procedure.

In conclusion I would add, should the Eustachian tube in any case of perforated membrana tympani be impermeable, this will be the only certain means of detecting this condition, especially if the opening be small and hidden.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

St. Louis, March 21st, 1874.

Dr. Newman reported a case of chronic cystitis, in a male, aged 75 years. Symptoms: copious purulent discharge, with retention of urine. Treatment: introduction of catheter twice daily; quinia, iron and strychnia, Fl. ext. belladonna, bromide of potassium and chloral. The purulent discharge had been relieved, but retention of urine, from atony of the bladder still rendered daily catheterization necessary. He was anxious to restore the action of the bladder, and therefore desired suggestions from other members.

Dr. Edgar suggested electricity. Electricity in his practice had produced favorable results. He used it in cases of atony of the bladder, uterus, or bowels. He thought physicians too frequently overlooked the use of electricity. It is unquestionably a valuable agent in these cases; and we should not neglect its use, because heretofore charlatans have chiefly employed it.

Dr. Hodgen reported the epiphyseal separation of the lower end of a femur, in a patient aged fourteen years. Patient had been thrown from a horse, and, his foot catching in the stirrup, dragged some distance, causing the injury. When called to him, he observed a marked deformity just above the knee—the patella also seemed turned to the outer side of the knee. He chloroformed his patient and made a careful examination and

concluded that the fracture extended through the condyles of the femur, necessarily involving the articular surface of the knee joint. Failing to reduce the fragments, he sent the patient to City Hospital, and soon afterwards determined to amputate, which was performed at the middle third of the femur. Examination of the specimen shows that the epiphyses of both condyles had been separated from the diaphysis of the femur—the epiphyses had been turned outward—the patella was still in its normal position relative to the condyles. The fracture had not extended into the joint as he formerly supposed. He exhibited the specimen, and reported the case, to show the possibility of error in diagnosing such cases. When he made the diagnosis of fracture of the external condyle, he did it with the thought in his mind, of the possibility and even probability of epiphyseal separation, on account of the age of the patient. It was evident that he had erred in diagnosis, and yet the amputation was justifiable in either case, perhaps more so in this case than had it been a fracture of the external condyle of the femur, because the bone had been denuded of periosteum, for seven inches up the shaft.

Dr. Keith reported a case of epilepsy, in a girl aged 12 years, caused by "jumping the rope" at school, one year ago. Paroxysms occurred at irregular intervals; at first every two weeks, afterwards more frequently, until finally, patient suffered from two seizures during the same night, two or three times a week. This condition continued for four or five months, under the treatment of a homœopath. He first prescribed for the patient about six months ago, advising that she be kept from school, that she take moderate exercise daily, in the open air. He used one pill three times daily, composed of quinia, iron by hydrogen, and valerianate of zinc, each one grain. Also a combination of bromide and iodide of potassium, twelve grains of the former with six grains of the latter, two hours after each meal. (Three months have now passed and patient has had no return of the paroxysms).

Dr. Laidley reported a fatal case from the use of chloral. He had ordered one ounce of chloral in four ounces of syrup, and directed a dessert-spoonful to be given three times during the night. Patient was suffering from the effects of a recent debauch—had mania à potu. Patient voluntarily swallowed

one-half the contents of the bottle (240 grains) at once, and in ten minutes was dead. He also stated that the druggist, contrary to his order, had refilled the prescription two or three times.

Dr. Hughes remarked that he had treated the same patient about eight years ago, for delirium tremens, and that in addition to being a confirmed inebriate, he was also a confirmed opium-eater. He thought the man died from nervous prostration, and from an overdose of chloral.

Dr. Kennard said the physicians of this city were partly to blame for allowing druggists to repeat their prescriptions *ad libitum*. He was in favor of having druggists burn all prescriptions at the end of every month. In this way physicians could to a great extent, control the druggists. It would have been unavailing in this case, however.

Dr. Keith next reported a case of mitral insufficiency with cardiac hypertrophy, in a young married lady, aged 20 years. Patient had a severe attack of pneumonia, complicated with acute arthritic rheumatism, eight years ago, she had "inflammatory rheumatism" also, three years ago. Was treated for endocarditis. Present symptoms: tumultuous action of the heart, and palpitation after any active exercise, such as walking up stairs; dull pain in the precordial region, frequent pain in her limbs, inability to rest in the horizontal position, having to be propped up in bed, more or less, every night for the past eight years. Physical signs revealed: lungs normal; heart hypertrophied; an endocardial murmur; systolic bruit, heard most distinctly at the apex of the heart, and not communicated along the aorta; action and force of heart increased. During the attacks of dyspnœa cynanosed condition of the ends of the fingers. No evidences of hysteria. Treatment (palliative): tinct. digitalis ten drops three times daily, combined with quinia and tinct. ferri, as a tonic to the heart's action. Also one or two drachms spirits ammonia aromat. during attacks of dyspnœa. Patient was voluntarily taking a Turkish bath every second day (a very questionable procedure, as she was four months pregnant). Patient seemed to be improving.

Dr. Hughes suggested the probability of hysteria and nervous irritability, and advised the propriety of a temporary separa-

tion from her *young* husband. He advised the use also of bromide of potassium.

Dr. Laidley exhibited a post-mortem specimen, part of the small intestine, from a female patient who had recently died of strangulated femoral hernia. The usual symptoms—stercoraceous vomiting and obstinate constipation—were present. Autopsy revealed a fatty tumor, at the crural ring, complicating the strangulation. He called a physician in consultation, who advised against an immediate operation. He then called in a surgeon who pronounced it a case for an operation, and fixed the next day as the time for the operation, but before the appointed time arrived, patient succumbed.

Dr. Gregory stated that in this case he found the tumor neither tense nor tender, and therefore favored an operation. "This specimen," said he, "illustrates the importance of following the surgical rule, namely: When you find a tumor in the femoral or inguinal region, which is neither tense nor tender, with no soreness in the part, with obstinate constipation complicating, and previous vomiting of stercoraceous matter, (although the vomiting may have ceased,) chloroform your patient, cut down and explore the part, find the strangulated intestine, reduce it, and *save your patient's life.*" In this case the tumor was not painful, or sore, but the parts were flaccid, and the tumor painless at the time he saw it. If stercoraceous vomiting had continued at the time he saw it, he would have favored an immediate operation, he would not have delayed till the next day. Dupuytren, following the above rule, operated in a case of double hernia, and found strangulation on only one side; still both his operations were justifiable; the life of his patient was saved by his prompt action.

Dr. Gregory next related the history of a patient sent to him for operation by Dr. Montgomery, a few years ago; patient came to his office *walking*, and had already walked several miles. On examination he found a tumor in the inguinal region, pronounced it a strangulated hernia, and directed him to the hospital; patient did not enter hospital until the second day afterward, dreading the operation. Assisted by Drs. Hodgen, Montgomery, and Yarnall, he operated, and found ulceration of the strangulated intestine—fecal matter spirted out as he made the last incision—discharged through the ulcerated portion of the

intestine. In reply to Dr. McPheeters' query, he said he did not excise the ulcerated portion of the intestine, as was also suggested at the operation, but returned it entire into the peritoneal cavity, without even sewing up the ulcerated intestine, and gave large doses of opium. He used injections daily, using sufficient water to fill the portion of intestine below the strangulation and wash it out. The wound healed in three weeks, without leaving a fecal fistula. Patient has had no return of the trouble. When patient first presented himself, all the symptoms had disappeared—except persistent constipation—the pulse was normal. In conclusion, if the symptoms of strangulation exist, and if reduction be impossible, it is clearly the surgeon's duty to chloroform his patient, make the necessary incision, explore the parts and, ascertaining the true condition, relieve it and restore his patient. Society adjourned.

CLAYTON KEITH, M. D., *Recording Secretary.*

Reviews and Bibliographical Notices.

STATIC ELECTRICITY. By Dr. A. Arthius. Translated from the French by Dr. J. H. Etheridge, Professor General Therapeutics, Rush Medical College. Chicago: W. B. Keen, Cook & Co., Publishers.

This is the title of a small volume translated from the French of Dr. Arthius by Dr. J. H. Etheridge, Professor of General Therapeutics, Rush College, Chicago.

The Professor, in his preface, recommends it to young American physicians as something new and valuable.

As a translation, it is not a success, and would do no credit to a six months' student in French. The translator seems to have held himself above all the ordinary rules of English grammer and composition, French phrases and construction having been freely retained, and the ordinary rules of translation

utterly ignored. Witness the following choice specimen of English.

"Two years later, in 1746, when the effects of the Leyden Jar became familiar, a great terror was excited by it, suddenly, because of its very power." Of the subject-matter of the book itself, the less said the better. It is surprising that a reputable physician should be willing to issue it over his name.

One chapter is devoted to dynamic electricity, which the author condemns in positive terms, citing all the cases he could discover in which injury has resulted from its use. The remainder of the book is devoted to statical electricity, its application and the cures he claims to have performed by it. His theory of the action of electricity on the human system is, charitably speaking, certainly a novel one—it is best given in his own words. "The body of man absorbs, sucks up as it were, the electric fluid through all its pores which open upon its surface." "It also has the lungs which in each inspiration receive either the simple electric fluid, like that obtained in the electric bath, producing around the patient an electric atmosphere which penetrates the lungs as ordinary air, or (receive) the medicated electric fluid as when the point of the excitator is directed to (into) the open mouth. The electric fluid charged or not with medicated principles, reaches, at the same time as the air, the bronchial vesicles, to pass into the vascular system and commingle with the blood, and thus to circulate throughout the body."

This theory and what is termed "transport of medicines by electricity"—using different metals on the "excitator," claiming thus to obtain their influence on the system, is the sum and substance of the book.

These lines, with a recital of the cases he claims to have cured by statical electricity—chronic rheumatism, diarrhœa, pulmonary phthisis in third stage, epilepsy—stamp the book at once as a simple advertisement of quackery. Who this Dr. Arthius is, we do not know, but the Rush College of Chicago is an institution of high standing in the medical world, and it must be a surprise and regret to the friends of that institution that one of its faculty, one styling himself Professor of General Therapeutics, should have endorsed and published such a bare-faced piece of charlatanism.

That good results are obtained in the use of electricity in medicine is now definitely settled, but its uses are limited the same as are other valuable remedies, a certain amount of disbelief or doubt of its value prevails among the general profession, and this is mainly the fault of such books as the present one. The advertisements and placards of the acknowledged quack are rated at their proper value, but when they are issued and endorsed by a college professor, they may mislead and do harm by bringing into disrepute a valuable remedy—such efforts should be severely criticised by all honest men in the profession. W. C. G.

A Clinical History of the Medical and Surgical Diseases of Women. By Robert Barnes, M. D., London. With one hundred and sixty-nine illustrations. Philadelphia: Henry C. Lea, 1874. 1 vol., 8vo., pp. 791.

This work is certainly the most important issued from the fertile pen of Dr. Barnes, and will doubtless be, like his former efforts, welcomed by the medical public. Although for many years the name of Dr. Barnes has been a household word with the American students of obstetrics, this is the first occasion on which this distinguished writer appears as a gynæcologist, at least in a book form.

The English journals have frequently presented extremely interesting communications from him on uterine diseases, but it must prove a source of gratification to the students of this branch of the science of medicine, that, at least, the author has placed in a permanent form, these essays, and condensed in a systematic work the knowledge of uterine pathology, arrived at by the efforts of so many distinguished minds. This book is certainly among the best, if not the best, we possess up to this date. It is, however, addressed to those more advanced in this science who can by it perfect a gynæcological education begun in the very excellent works of Prof. F. Guillard Thomas, Dr. Grady Hewitt, and others. It is a mine of bibliographical information, and, perhaps, a little prolix occasionally on account of the richness of its erudition. It is a progressive work; for, gynæcology is a progressive science—its greatest advance being almost of yesterday.

However, it is not a new science altogether. In every age,

the diseases of the uterus and its annexes have occupied physicians, and some of the most valuable contributions to modern gynæcology will be found to be foreshadowed, or even plainly stated, by the writers of a past age. Take, as examples, the use of the uterine sound, sponge-tents, dilatation of the constricted cervix, and even the speculum itself, which was mentioned by Paulus Eginius, André de la Croix, Guillemeau, Ambroise Paré, etc. The speculum had, however, fallen into disuse, when in 1801, Récamier, who was really the founder of modern gynæcology, regenerated and perfected that instrument. Like all discoveries, this had its adversaries and fanatic friends, both being in the wrong. It cannot be denied that the speculum is of valuable assistance, but that at the same time it has led to erroneous diagnosis, and is not the sole means for the physical exploration of the uterus.

The relations of ovulation to menstruation, as demonstrated by the profound researches of Bischoff, Coste, Pouchet, etc., has thrown new lights upon many points of uterine pathogeny. The solution of this problem is certainly one of the finest discoveries of modern science. To this cause of progress in gynæcology may be added the numerous contributions to embryogeny and histology undertaken in France and Germany. Under this impulse, there appears that brilliant array of modern writers, beginning with Récamier, Lisfranc, Duparcque, Aran, Nonat, Bernutz, Goupil Courty, etc., in France; Bennet, Ashwell, West, Simpson, Spencer Wells, Baker Brown, G. Hewitt, etc., in England; Kiwish, Mayer, Braun, Scanzoni, Grenser, Seyfert, Feit, etc., in Germany; Dewees, Meigs, Byford, Bedford the Atlees, Sims, Emmett, Ephraim M'Dowell, the illustrious founder of ovariotomy, and H. R. Storer, in America, etc.

Through the efforts of these distinguished men, gynæcology has raised itself to that condition where Dr. Barnes has found it, and, ably condensing their labors, he has presented a complete epitome of the results of their investigations. These men were specialists, but in gynæcology, in order to make special and useful researches, as in obstetrics, ophthalmology, dermatology or syphilography, one must first embrace the whole of medical science, then concentrate with abnegation one's investigations upon a limited part of that science. Speciality is the

lowest degree of art, when not founded on general knowledge, it is the perfection of art when it is the crowning of science. One must *end* instead of *beginning* by a speciality; and it is what has been done by the men who constitute the modern school of gynæcology.

From the above rapid review of the part contributed to uterine diseases by the above writers, it might be concluded that a new work on this subject was not necessary. But apart from the fact that gynæcology progresses every year, it cannot be denied that the writings of the above authors are deficient, or incomplete, in many respects. For instance, H. Bennet speaks of nothing but inflammation to which he subordinates all uterine affections; Scanzoni's work, so excellent in many points, is too concise on some subjects of great interest, such as the diseases of the uterus, etc. The same remark may apply to other writers, either too prolix or too concise on important subjects. Dr. Barnes' work, although not altogether free from the same reproach, to a certain degree, is still more complete on those important subjects of which the student wishes to know all that has been said of them. To some physicians, the bulk of this work may seem excessive, but may not this apparent excess represent the excess of their neglect?

The work is copiously illustrated with original wood cuts, many of these taken from the rich mines of pathological materials in the museum of the College of Surgeons and of the London Hospital. The style is the old captivating style of Dr. Barnes. It would be impossible in this short review to allude, except *en passant*, to the many interesting subjects of this book. The chapters on Disorders of Functions, on Ovarian Diseases, on Extra Uterine Gestation, and on Pelvic Cellulitis (Parametritis), Perimetritis, are full of information and original hints on these affections. The subject of Cancer, Colpitis, and Diseases of the Vagina and Vulva, contain the most modern views on these important subjects and marked, as is the whole work, by that good common sense so characteristic of the English. The views of the author are not, however, narrow, thus refuting the assertion that, as the English live in an island, they are insular in their ideas.

L. Ch. B.

BOOKS AND PAMPHLETS RECEIVED.

LIGATION OF ARTERIES, An Operative Manual. By Dr. L. H. Farabeuf. Translated by John D. Jackson, M. D., of Danville, Ky. With engravings. Philadelphia: J. B. Lippincott & Co., 1874.

[For Sale by the St. Louis Book & News Co.]

LECTURES ON THE DISEASES OF INFANCY AND CHILDHOOD. By Charles West, M. D. Fifth American from the Sixth Revised and Enlarged English Edition. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

A TREATISE ON PHARMACY. Designed as a Text-Book for the student, and as a guide for the physician and pharmacist, containing the officinal and many unofficinal formulas. By Edward Parrish, late Professor of the Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc. Fourth edition, enlarged and thoroughly revised by Thos. S. Wiegand. With two hundred and eighty illustrations. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

CATALOGUE OF THE BOYLSTON MEDICAL SOCIETY OF HARVARD UNIVERSITY. Boston: D. Clapp & Son, 1874.

THE SCIENCE OF HOMŒOPATHY, OR THE DOCTRINES OF THE HOMŒOPATHIC SCHOOL. By Charles J. Hempel, M. D. For sale by Boericke & Tafel, 145 Grand street, New York. Price, $1.75.

ON THE CONNECTION OF THROAT AND OTHER DISEASES. By L. Elsberg, M. D. From the *Medical Gazette.* New York: Turner & Mignaud, publishers.

SYPHILITIC MEMBRANOID OCCLUSION OF THE RIMA GLOTTIDIS. By Louis Elsberg, M. D. Reprint from the *Amtrican Journal of Syphilography.* New York: F. W. Christern, 77 University Place.

RETENTION OF URINE. By Alex. W. Stein, M. D. Reprint from the *New York Medical Journal.* New York: D. Appleton & Co., 551 Broadway, 1874.

CATALOGUE BOSTON MEDICAL SOCIETY OF HARVARD UNIVERSITY, 1874. Boston: David Clapp & Son.

THE MUTUAL RELATIONS OF DRUGGISTS AND PHYSICIANS. An Address before the Graduating Class of the Massachusetts College of Pharmacy, April 22, 1874. By Charles E. Buckingham, M. D. Boston: David Clapp & Son.

Editorial.

The Missouri State Medical Association held its eighth annual meeting at Sedalia, on the 21st of April. The attendance was larger than in former years, the northern and central portions of the State being fairly represented, but the southern section failed to send a delegate, doubtless on account of the difficulty or rather expense of reaching the place. The Association continued in session two days, a large number of papers were read and some of them discussed at length. Place of meeting next year was fixed at Jefferson City. As we are assured by the chairman of the Committee of Publication that the *Transactions* will be published immediately, farther notice may be postponed.

The following officers were elected for the ensuing year: President, W. O. Torry, Hannibal; Vice-Presidents, T. J. Montgomery, Sedalia; J. S. B. Alleyne, St. Louis; F. M. Johnson, Platte City; W. C. Webb, Dover; W. L. Shankland, Clinton; Recording Secretary, E. W. Schauffler, Kansas City; Corresponding Secretary, A. S. Cloud, Chillicothe; Treasurer, Jno. T. Hodgen, St. Louis; Member of the Nominating Committee of the American Medical Association, M. A. Pallen, St. Louis.

CLIMATE AND PHTHISIS.

We have a circular letter from Dr. Charles Denison, of Denver, Col., concerning local influences and surroundings in the production and treatment of phthisis on this continent. We have good reason to believe this an honest effort to accumulate facts, without regard to their bearing upon any particular locality or private enterprise. Not "another town lot and hotel speculation out West," but an intention to supply a valuable contribution to our literature concerning the management of this disease, so long the opprobium of the profession.

If any of our readers should receive this circular, we hope they may not be appalled by the number or difficulty of the questions, but answer promptly "to the best of their knowledge and belief."

LAW OF MISSOURI CONCERNING THE PRACTICE OF MEDICINE.

We furnish below a synopsis of the law passed at the last session of the Legislature of Missouri in relation to the practice of medicine and surgery in this State, Approved March 27th, 1874.

1. It is made unlawful for any person to practice medicine or surgery in this State, who shall not have first received the degree of doctor of medicine from some medical college or university duly established under and by virtue of the laws of the State or County in which the same is situated.

2. Every person wishing to commence the practice of medicine or surgery in this State is required to file a copy of his diploma in the office of the County Clerk of the County in which he resides, to be sworn to and subscribed by the party filing the same, and thereupon the County Clerk registers the diploma for which a fee must be paid.

3. Persons practicing or who shall commence to practice before the first of September, 1874, shall register without diplomas.

4. The penalty for non-compliance with the act, upon conviction, is fixed at not less than twenty-five nor more than five hundred dollars; and the fact that such person has not filed his diploma is a sufficient defence in any action which he may bring to recover his fees for professional services.

PURE DRUGS. We notice in the April number of *The Pharmacist*, Chicago, that in an examination of the fluid preparations of *cannabis indicæ*, by Henry W. Buchman, that the "standard" made from the tops was—

	Specific Gravity.	Amount Extract.	Amount Resin.
"Standard," - - - - - -	886	101.00	78.3
E. R. Squibb, M. D., - - - -	878	100.25	74.0
Allaire, Woodward & Co., Peoria, Ills.	861	97.90	73.2

While samples from fifteen other manufacturers, many of them well known and sharing largely the popular favor, did

not approximate these figures, and some fell below twenty-five per cent. of what they should be. This showing, if correct—and we have no reason to doubt it—is very complimentary to Allaire, Woodward & Co., of Peoria, Ills.

MARRIED.

MARSHALL—McMILLAN—On the 7th inst., by Rev. E. H. Rutherford, at the residence of Capt. H. H. Dalton, No. 2631 Olive street, Dr. Alexander Marshall to Miss I. Carrie McMillan, all of St. Louis. No cards.

OBITUARY.

Died, on Saturday, the 2d day of May, 1874, of pneumonia, Dr. Martin V. Moore, at his residence in Perryville, Mo., in the thirty-sixth year of his age. He graduated at the St. Louis Medical College on the 13th day of March, 1869, and had practiced in this county ever since. He was esteemed an excellent physician, and leaves many friends, both personally and professionally, to mourn his untimely death. C. A. M.

At a called meeting of the Zanesville Academy of Medicine, held Saturday, May 2, to take action in relation to the death of its late Fellow, Dr. Jno. G. F. Holston, Sr., which took place at Washington, D. C., May 1, 1874. The following resolutions were adopted:

Resolved, That in the death of Dr. Holston, the Zanesville Academy of Medicine loses one of its prominent members, and the profession at large, an eminent physician and surgeon of extensive professional and literary culture, ripe experience and accurate judgment; and society a warm hearted, genial and generous member, whose life has been mainly devoted to the good of his fellow-beings.

Resolved, That we attend the obsequies of our deceased Fellow in a body.

Resolved, That we deeply sympathize with the family and relatives of the deceased.

Resolved, That the Corresponding Secretary transmit a copy of these resolutions to the family, the city Press, and the Medical Journal. C. C. HILDRETH, Chairman.

A. E. BELL, Secretary *pro tem.*

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

APRIL, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	28.0	42.5	18	41.0	61.5
2	32.0	51.5	19	49.5	52.5
3	30.5	67.0	20	46.0	56.5
4	38.5	46.0	21	38.5	55.0
5	35.5	40.5	22	45.0	50.5
6	32.5	41.0	23	38.5	31.0
7	34.0	51.0	24	35.0	53.5
8	40.5	54.5	25	36.0	62.5
9	33.0	47.0	26	41.5	62.0
10	31.0	57.5	27	51.0	68.0
11	43.5	77.5	28	38.5	51.5
12	38.5	66.5	29	35.0	59.0
13	52.0	64.5	30	43.0	81.5
14	51.5	76.5			
15	44.0	57.0			
16	35.0	38.0	Means	39.1	5.66
17	35.0	53.5	Monthly Mean	47.8	

Quantity of rain: 2.54 inches.

Mortality Report.—City of St. Louis.

FROM APR. 18th, 1874, TO MAY 23d, 1874, INCLUS.

Alcoholism	2	Consumption	46	Fracture of Skull	1	Meningitis Cer. Sp.	8
Abscess	3	Convusions	25	Gastritis	3	Old Age	8
Accident, run over	5	Croup	1	Gastro Enteritis	2	Oedema Pulm	1
" drowning	2	Cyanosis	1	Heart, Paralysis of	1	Parturition	1
Anemia	2	Chorea	1	" Dis. not Sp.	1	Paralysis	3
Angina Pectoris	2	Diptheria	4	" Hyperthropy	1	Premature Birth	1
Asthma	2	Debility	4	" Valv. Dis	2	Purpura Hemorr	7
Atelactasis	2	Diabetes	1	" Org. Dis. of	1	Pneumonia	31
Apoplexy	3	Delerium Tremens	1	Hemorrhage, Intern.	1	Pleuritis	3
Albuminuria	2	Diarrhœa	7	Hepatitis	2	Peritonitis	4
Brain, Congestion of	9	Dysentery	3	Hydrocephalus	1	Pyæmia	13
" Concussion of	1	Dropsy	10	Hematemesis	1	Small Pox	24
" Softening of	3	Eclampsia	2	Hemorrhage	2	Spina Bifida	1
Bronchitis	16	Epilepsy	5	Hemoptesis	1	Trismus Nasc	2
Bright's Disease	1	Endocarditis	2	Icterus	2	Unknown	2
Catarrh, Intestinal	1	Enteritis	3	Insanity	1	Varioloid	1
Cancer	2	Erysipelas	4	Inflam. of Bowels	2	Whooping Cough	3
Caries	1	Fever, Congestive	1	Liver, Cong. of	4		
Cholera Infantum	2	" Typhoid	5	Laryngitis	2	Total	360
" Morbus	1	" Scarlet	7	Marasmus	16	Stillborn	49
Cirrhosis of Liver	2	" Remittent	2	Measles	1	Under 5 years	166
Cerebritis	4	Fracture of Leg	1	Meningitis	5		

THE SAINT LOUIS

Medical and Surgical Journal.

JULY, 1874.

Original Communications.

REPORT ON PHYSIOLOGY, MATERIA MEDICA AND THE PRACTICE OF MEDICINE.

Read before the American Medical Association, Detroit, June 3d, 1874,
By N. S. DAVIS, M. D.

By an amendment of the constitution of this National organization, adopted at the annual meeting in 1873, it becomes my duty on the present occasion to report to you "the more important advances and discoveries of the past year" in the departments of practical medicine, materia medica and physiology.

To judge correctly concerning the improvements and discoveries made in any important department of science or art in a single year, requires a minute knowledge both of the preceding condition of such science and of its entire literature for the year under consideration. Hence, the task involves much labor, and its proper performance needs the exercise of sound judgment; for it is not every novelty that constitutes a discovery, nor every new phraseology in the expression of ideas or facts that constitutes an actual advancement.

Perhaps the chief improvements or additions to our knowledge in the department of physiology during the year ending April 1, 1874, are such as relate to the functions of the brain and nervous system. The experiments of Fritsch and Thitzig, Nothnagel, Fourney, Ferrier, Dupuy, Carville, Bartholow and others, for the purpose of determining more definitely the functions of particular parts of the brain, have attracted much attention. The novel methods adopted by these experimenters, consisting in some instances in the injection of distinctive substances, colored with analine, into the substance of the brain; and in others in the application of electric and galvano-electric action to limited portions of the cerebral hemispheres, and the striking results that followed, were thought by many to have brought a new era in the development of cerebral physiology, and to have overthrown many of the opinions hitherto regarded as well founded. Up to the time of these recent experiments it was supposed that the gray matter of the cerebral periphery, being the seat of mental perception, was not amenable to direct excitation by stimuli. But when Ferrier laid bare the surface of the convolutions and by applying his blunt electrodes, induced with readiness and apparent uniformity certain muscular movements, according to the convolutions touched, it appeared to demonstrate not only sensibility of the cerebral surface to stimuli, but also the special localization therein of motor functions. By the subsequent investigations of Dupuy, as detailed in his inaugural thesis, it is shown that the faradic currents used by Ferrier could not be restricted to the peripheric layer of the brain, but they readily penetrated to the striated matter and central ganglia, and therefore produced their effect on muscular

movements by direct excitation of these deeper seated parts. M. Carville, in repeating the same methods of investigation, more especially with the animals experimented on under the influence of anæsthetics, obtained results confirming the views of Dupuy. Very recently Dr. Bartholow, of Cincinnati, availed himself of an opportunity to perform a limited number of experiments on the brain of a patient, a large part of whose skull had been removed by disease in such a manner as to leave a considerable extent of cerebral surface bare, including portions of both hemispheres.

The mode of experimenting differed from that of Ferrier, chiefly in the use of fine needle electrodes penetrating the brain substance, instead of blunt ones resting on its surface. The results in producing muscular movements corresponded closely with those obtained by Ferrier on animals. And when during the third experiment the faradic current was rendered more intense, decided epileptiform convulsions ensued. While the results of these few experiments on the human brain correspond closely with those obtained by Ferrier, yet they are still more amenable to the objections made by Dupuy and Carville, because in making a subsequent post-mortem examination Dr. Bartholow found his needle electrodes had penetrated from one to one and a half inches into the cerebral substance. The whole history of experimentation involving the injury or mutilation of animals, for determining the functions of any part of the nervous system, shows that conclusions must be drawn from them with great caution. From a careful review of all these recent and highly interesting experiments their combined results appear to confirm the previous views concerning the functions of different portions of the brain, instead of overthrowing them.

And if they have added anything to our physiological and anatomical knowledge it is in indicating more definitely the exact points of localities in the periphery, where the striated fibers forming the medium of communication between the central ganglia—as the corpora striata and optic thalami—and the gray matter of the convolutions touch the latter.

We had regarded these results of previous physiological experiments in connection with many pathological phenomena as sufficient to indicate clearly a primary center for ordinary sensation in the optic thalami, to which impressions from all points of the body are transmitted by one set of nerve filaments, and from which they are transmitted to some point in the periphery by some of the white fibers intervening between these bodies and the gray matter of the convolutions, when the impressions are mentally recognized, and the resulting volition is sent from the same part by another set of white fibers, first to the central ganglia represented by the corporas triata, and thence to whatever set of muscles are required to obey the mandate of volition. Instead of indicating any new functions in the convolutions, or spinal organs of muscular sense, the recent experiments have simply indicated more directly the particular convolutions in contact with the conducting fibers communicating through the common center with particular sets of muscles. The observations of Dr. Eichorst (see Virchow's Archiv) on the degeneration and regeneration of cut and injured nerves, are interesting and important. They were made on the nerves of rabbits, and appeared to establish the fact that cut and injured nerves first exhibit an accumulation of granular matter, increasing the bulk which appears to arise from a breaking

up or degeneration of the medullary matter of nerve. The sheath, of Schwan, and the perineurium become swollen from serous transudation, while the axis cylinders remain but little changed. During the second week these exudative and degenerative changes gradually disappear and the process of regeneration becomes visible in the form of delicate and slender threads running into and extending from the injured end of the nerve. The reparative action is observable at the end of the second week, and continues several weeks before it becomes complete. Dr. Eichorst made no observations in regard to the time required for the nerve function to be restored. But from the slowness of the reparative process, as well as from other recently observed facts, it is rendered probable that those cases of apparent speedy restoration of function after injury or excision of nerves reported by surgeons have been instances in which the parts received nerves from other sources. While I would not discourage investigations in any direction, or in any degree undervalue the importance of a correct physiology of the nervous structures entering into the human body, yet I am strongly impressed with the idea that we are attributing too much to nerve influence, and too little to the influence of properties inherent in all living structures. We have come near to the standpoint of referring all impressions, healthy and morbid, to a primary reception by some part of the nervous system, and as a consequence, of regarding all vital actions as in some way dependent on nervous influence. In this we are confounding nerve sensibility and nerve force with properties that are inherent in living organic matter, and are as clearly appreciable in the primary germinal cell, or granule of bioplasm, as in

the most highly organized nerve structure. I do not allude to vitality or the abstract principles of life, for it is doubtless beyond human comprehension. Imparted primarily by the Creator to matter in certain modes of combination, and perpetuated by parent to offspring throughout the whole domain of organic nature, both vegetable and animal, it stands in its relation to the human mind as an ultimate fact, incapable of further analysis or explanation.

But when matter is thus endowed with vitality it possesses certain properties that can be studied and comprehended as readily as we study the properties of inorganic matter. It is as easy to demonstrate that the germinal cell of the ovum or the acorn possesses a susceptibility to the presence of certain exterior agents, as heat, moisture, electricity and a peculiar affinity by which it elects and combines with certain atoms of matter and rejects others, thereby effecting determinate changes that we call growth, as it is to demonstrate that an acid will unite with a base, or that the presence of a second acid will cause the rejection of the first and the formation of a new compound. Susceptibility and vital affinity are properties common to all living organic matter, whether in the primary germinal specks of a bioplasm or in the most complex structures of the human body. And they exert a controlling influence in all that relate to molecular changes in assimilation, nutrition, disintegration, secretion, and, as a consequence, in the evolution of caloric. These properties are capable of being modified or acted upon directly by all those pervading forces, sometimes styled imponderable agents, such as electricity, heat, light, etc., and by the presence of many alimentary and medicinal agents.

They are in no sense derived from the nervous structures, and can be modified only indirectly by nerve influence. Every system of physiology which does not recognize these elementary properties of all living matter as distinctly as it does the special functions of each organized structure will be found defective. Not only will it be defective as a branch of science, but as the basis or point of departure for the study of pathology, it will continue to involve us in doubt, obscurity and false conclusions.

Materia Medica.—The past year has not been made notable by the discovery of any new and valuable article of the materia medica, or by new applications of old remedies of such importance as to be worthy of special mention. What we most need, however, in this department, is not the addition of new articles or new applications of old ones, but a more complete knowledge of the composition and properties, with a more exact appreciation of the *modus operandi* of such as are already on the official list. The progress of organic and analytical chemistry, and its application to the investigation of the composition and properties of medical agents, is constantly separating out the active principles and presenting them for use in more convenient and reliable forms, but most of our methods of testing the the effects of medicines on the various functions of the human body are extremely defective. So true is this that the most diverse opinions still exist concerning the action of many of the oldest and most frequently used articles of the materia medica. And not a few of them—like opium, quinine, alcohol—are commonly regarded as capable of exerting directly opposite effects

by simply altering the dose. That is, we are told that in small doses they are stimulant or tonic, and in large doses sedative or narcotic, but at what point in the progress of increasing the dose the action becomes reversed, no one appears able to point out with exactness. Perhaps in no other department of medicine do we find opinions and conclusions derived from investigations so partial or incomplete; and the adherence to names and classifications involve so much confusion. It is to this condition of our materia medica that we owe many of these apparently contradictory modes of practice, which have done much either to create skepticism, both in and out of the profession, or to fasten the theory that the type and character of diseases change with the cycles of time. The idea that the special type and character of diseases have undergone marked changes, and are far less active or sthenic now than in the earlier part of the present century, has become very general both in and out of the profession. And this is alleged as a reason for the change in practice from depletion and antiphlogistics to nourishment and so-called stimulants. But if we analyze more closely the development of opinions and modes of thought, as presented in the medical literature of the last half century, we shall be forced to the acknowledgment that the idea of change in the character of diseases has followed rather than preceded the changesin the modes of practice, and that it really has no other appreciable facts on which to rest. In other words, it will be found to have been a simple theoretic idea, suggested to avoid the difficulty and skepticism arising from such various and apparently contradictory modes of practice.

We say *apparently contradictory*, for it is not certain

that a more careful review of the *modus operandi* of the remedial agents used would not show the most diverse in appearance to have really reached the same end by different routes. For example, on the assumption of the chronic physiologists that alcohol is respiratory food, acting as a stimulant to the organic functions and sustaining the temperature of the body, nothing could appear more opposite than to treat one case of fever or acute disease with arterial sedatives, evacuants and alteratives, and another case of the same disease with alcoholic liquids and nourishment. But when we turn from the theoretical assumption to the results of positive experimentation we find the ingestion of alcohol to be followed by a reduction of temperature, a retarding of capillary circulation and molecular change, and a diminution of nerve sensibility. In other words, we find the *assumed* stimulant to be a positive and universal *sedative* to organic and molecular changes and anæsthetic to nerve sensibility.

Hence the practitioner who plies his patient freely with wine, whisky or brandy is as certainly holding him under the influence of a powerful sedative as was his ancestor who bled and physicked, or his cotemporary who gave veratrum and alteratives; and we need resort to no supposible change in the type of disease to understand why all, if wielding their weapons with equal skill, arrive at very similar results. As already intimated there is no other department of medicine that so urgently needs a thoroughly critical and experimental revision as our materia medica. The work should be carefully planned and persistently pursued until the erroneous phraseology is corrected, and the mass of speculations and mere assumptions are replaced with positively observed facts.

Practical Medicine.—In the department of practical medicine, as in that of materia medica, the past year has revealed no striking discoveries either in regard to the nature of disease or the methods of treatment. Yet, it has been characterized by a genuine progress that is worthy of careful study.

History is said to be ever repeating itself.

The human mind is ever tending to extreme views in all departments of study, and to hasty generalizing from facts insufficient in number and imperfectly observed. And in no department of literature and science are these tendencies more strikingly illustrated than in the history of practical medicine.

The pendulum of professional opinion and practice has swung from one extreme to another with almost as much regularity and certainty as if moved by the force of gravity. During the first half of the present century professional practice had reached the extreme of depletion and evacuants, when checked by its own abuses the return wave carried us in the short space of three decades first to conservatism or expectancy, and then to full stuffing and so-called stimulation, until wine, brandy and indiscriminate nourishment were made the instruments of abuses no less injurious to the human family than blood-letting and evacuants in their palmiest days. This last swing of the professional pendulum has just reached its widest divergence from the perpendicular, and one of the most gratifying evidences of progress in practical medicine the past year consists in the plain indication to be seen in various quarters, that the pendulum has fairly commenced its return motion. The constantly increasing importance attached to fresh air, pure water, and frequent ablutions in the sick room; the more careful adjustment of the

quantity and quality of food to the capacity of the digestive organs for acting on it; the rapidly increasing condemnation of the indiscriminate use of alcoholic and other anæsthetic and narcotic agents; the occasional unsheathing of the long neglected lancet, with here and there a bold, outspoken advocacy of its judicious use; and above all, the better appreciation of the fact that a retardation of tissue, metamorphosis and elimination, is by no means equivalent to assimilation and nutrition, either in health or disease, are marks of a genuine progress, that can be easily recognized in the literature of practical medicine during the past year. And happy would it be, both for the profession and the public, if the return wave of thought, investigation and practice, now fairly begun, could be so guided by a higher mental discipline, the adoption of more patient and complete methods of observation, and the adherence to a more rational induction, as to turn it steadily upward at the true meridian line, instead of allowing it to roll steadily on until it again breaks upon the reefs and shoals of its own excesses. But we see no good reason for hoping for such a result. On the contrary, evidences of the same tendency to extremes and hasty generalizations are as visible in the field of practice to-day as at any former period. Very recently attention was directed anew to the importance of noting the variations of temperature in diseases, and straightway there appear diagrams marking the variations of temperature in the progress of diseases with as much apparent fixedness and certainty as the thermometric lines are drawn over the topographical map of a continent, and the practitioner looks upon his pocket thermometer as his chief instrument in diagnosis and prognosis. That *temperature*, if studied in close, careful connection with the co-existing

indications of the state of nutrition, disintegration and elimination, is of great importance in a clinical aspect, is certainly true. It was the subject of my inaugural thesis in January, 1837. It was again the subject of a careful series of investigations by me, more especially in relation to certain kinds of food and drink, in 1850, the results of which were embodied in a paper read to this Association in May, 1851, and published in the *Northwestern Medical and Surgical Journal* for that year. Those investigations fully disclosed the important fact that the temperature of the body varied from 1° to 2° F. with each ordinary meal, invariably rising during the active period of digestion and then gradually declining until the next ingestion of food—thereby establishing precisely the same facts, that were again proved experimentally by Dr. E. C. Buckingham, of Boston, as published in the Boston *Medical and Surgical Journal*, for January 1, 1874. It was in the same paper, read to this Association in 1851, that the first direct experimental proof was given of the power of alcohol when in the human system to directly reduce its temperature. That the temperature of a body is altered by every change of its molecules, being increased as these become more compact or dense, is a well known law of physics. As a rule those processes by which new materials are digested, assimilated and added to the tissues, evolve caloric or heat; while those by which the cells and atoms of the tissues are redissolved, eliminated through the skin, lungs and kidneys, absorb or render the sensible heat latent, and therefore reduce the temperature.

When these adverse processes balance each other the ordinary standard of temperature is maintained, subject to such daily variations as accompany the active stages of digestion. Thence it is plain that a given degree of

temperature in any stage of disease is a simple physical fact, the correct interpretation of which will depend entirely on the careful noting of the coincident state of the processes of ingestion and elimination. Just as the dulness elicited by percussion denotes the simple physical fact of increased density, while the question whether such density, depends upon tubercular deposits, hepatization, or pleuritic effusion, will depend altogether upon the history of the case and the coincident facts. If we use our clinical thermometer for the same purpose that we use the instrument for percussion and ausculation, that is, for the establishment of a physical fact to be interpreted by a careful appreciation of preceding and accompanying phenomena, it will be of great value. But if we endeavor to make its markings into arbitrary rules to guide our practice, as has already been too hastily attempted, it will lead us into mischievous errors at every step.

Another striking exemplification of the fact that our own day is as prolific of partial observations and hasty inferences as any that have gone by is found in the application of the microscope to the study of etiology and pathology.

Through its prolific revelations one army after another of poisonous germs are found preying upon the human race, until not only the air, earth and water, but even the blood and the bowels literally swarm with them. From syphilis to cholera, and from them to cancer we have little else but microscopic germs enumerated as essential causes of disease. Dr. A., in some part of Europe, announces that he has discovered in the dejections of cholera patients certain germs, which by diligent cultivation multiply and develop rapidly, and a large part of the medical world at once leap to the con-

clusion that these are the veritable cause of that dire disease, and instead of patiently extending observations to ascertain whether the same germs are not to be found in the serous discharges from mucous surfaces, in any form of disease, after exposure to atmospheric air, they immediately give loose rein to imagination for the purpose of explaining how these extraordinary germs, hatched on the banks of the Ganges, could be propagated and distributed around the globe.

For this purpose they are made to travel with caravans, sail on ships, ride on railroads; and where there is neither caravan, ship, railroad nor canal they are made to percolate through the soil, receiving reinforcements now and then from some luckless wight perambulating the country with *cholerine* and dropping his dejections just in the right place to supply the needed link in the chain of connection. But just as we have our maps lithographed, our literature filled with satisfactory explanations, and our warehouses filled with materials for disinfecting the dreaded dejections, the tantalizing word comes from a thousand sources that the supposed cholera germs are not by any means peculiar to the dejections from that disease, but may be readily cultivated as a post partem growth in any serous evacuation from the alimentary canal. From the tenor of these observations let no one infer that I undervalue the microscope as an aid in the study or investigation of medical topics. It has literally opened to us a wide and most important field of knowledge, and, when rightly used, is capable of adding much more. My object is simply to attract your attention to what has appeared to me the strongest barriers in the way of genuine progress, both in the science and art of medicine, namely: Incomplete observation of facts; deductions from inadequate

premises, and the constant use of mere theoretical assumptions or suppositions as though they were demonstrated facts. It is the indulgence of these practices that actually keeps one-half of the professional observers busy in correcting the errors and disproving the assumptions of the other half, and fills our literature with endless contradictions. Almost every problem connected with medicine is complex, requiring for its proper solution a careful observation of many elements, and their exact relations to each other.

This is pre-eminently true of the problems involved in the study of etiology, or the causes of disease. To demonstrate the true relation of cause and effect, in the origin and spread of disease, requires not only many observations concerning all the elements entering into the problem, but it requires these observations to be made coincidently in several distinct localities. And when the causation of epidemics is involved, the observations should have preceded for a considerable time the actual appearance of the disease, and be continued a like period after it has ceased to prevail. Indeed, if we would make genuine and reliable progress in the study of the causes and modes of propagation of diseases of every kind, we must no longer depend on chance observations, individual enterprises, or irregular and temporary expedients; but we must devise a complete and permanent plan or system of observation, concerning the whole country, rendering available all the aid to be afforded by chemistry, microscopy, meteorology, and other branches of general physics, and pursue it with fidelity for a series of years. The appliances needed for such a work, even to the inclusion of atmospheric currents and terrestial electricity, are

available at the present day. What is needed is the wisely devised plan, the individval workers to man it, and the central executive power to maintain it in operation, and cause the results to be annually gathered, carefully scrutinized and communicated to the profession at large. And is not this National representative body exactly the central executive power that we need? Is not the section on practical medicine, materia medica, and physiology the place to devise the plan, to choose the workers, to designate the localities, and to annually gather in and digest the fruits? Many have asserted that the American Medical Association is a failure; and many are apparently looking anxiously for its early dissolution.

But it has appeared to me that it has just reached the stage of development and the degree of perfection in its organization necessary for entering upon a career of prosperity and usefulness hitherto unknown in the history of scientific and professional organization.

With all ethical matters in the hands of a judicial council; with our strictly representative character improved; and the organization of the sections more complete, we are really just prepared for efficient service in every department of the broad domain of medicine.

May we not hope that during this session of the association every member will attach himself permanently to some one of the sections, choosing the one embracing the departments of study most congenial to his own tastes and opportunities; and that each section, in addition to the hearing of reports and volunteer papers, and discussing them, will carefully plan definite methods for investigating some important topic connected with each branch of medicine assigned to it?

Such a course, pursued from year to year, would rapidly diffuse a more philosophical spirit of investigation, check excesses and hasty generalizations, foster co-operation, uniformity, and persistence in researches, and give to this Association such a character as would rally to its support the earnest workers in the profession from all parts of the country, thereby rendering its existence not only perpetual, but also even increasingly useful to the profession it represents, and to the great family of man.

The report was referred to the proper section.—*Detroit Daily Post Phonetic Report.*

OPHTHALMOLOGICAL PORTENTS.

By Wm. Dickinson, D. D.

[Continued from Page 298.]

I will narrate another case which originally occurred in the practice of another physician, a general practitioner, but of great experience and skill, however, who in doubt whether glaucoma or cataract was present, desired my opinion. I may be permitted incidentally to remark that the distinction in certain stages of these diseases without the aid of the ophthalmoscope is not always easily determined; indeed, while engaged in this writing, I observe the record that one of the best ophthalmic surgeons in Europe (once at least) mistook cataract for this disease. Our patient was a lady of 60 years of age, of superior intelligence, much devoted

previously to reading, and had always enjoyed excellent vision, but for several weeks had suffered from dyspepsia and pain in and around the eyes. The other symptoms, usually accompanying, were also present, though some of them in a mild degree. The diagnosis was readily made that glaucoma was now present, and the patient, by her physician and myself, was urged to submit immediately to operation; she was also informed that in *this mode of treatment* was reposed all hope of remedy; the inevitable consequences of delay were duly portrayed. Many circumstances conspired to postpone the operation; meanwhile, brilliant seasons of partially restored vision were occasionally enjoyed, arousing hope of ultimate restoration without resort to operation; but these were soon followed by more complete eclipse. These oscillations continuing, at last, gravitated to and terminated in blindness. Six weeks later the operation was performed, but then it brought no benefit; the golden opportunity had passed through timid delay, never, never to return.

The cases now enumerated present the usual symptoms of glaucoma, acute and chronic. From them we derive two important lessons, to which I desire to give especial enforcement, viz: 1st, the duty on the part of the physician to acquire a right interpretation of the significance of the pain present, giving it precedence over others accompanying. 2nd, the duty and necessity on the part of the patient to submit to early operation, in view of the momentous consequences that wait on delay.

Leaving farther illustrations of this *sign* in glaucoma, I now pass to the consideration of "*pain*" as a symptom and sign of sympathetic ophthalmia.

In illustration of the significance of pain in this affection, I shall narrate a case of traumatic iritis in one eye, followed by its loss of vision, which became the occasion of sympathetic ophthalmia in the other and subsequently of loss of vision in it also. Mr. C., 38 years of age, of intemperate habits, during the Christmas holidays received a blow from a missile, carelessly thrown, upon the left eye in the ciliary region, the lid being interposed. Its force was so great that he was prostrated by it. On the third day after, vision became obscured, and soon after total blindness in it rapidly supervened. Meanwhile the pain, increasing in severity, soon became excruciating and could be mitigated only by the exhibition of large and frequent doses of morphine. Other means of alleviation, *e. g.*, leeches, blisters and purgatives were also employed. On February 9th, he first consulted me. Intense vascularity of the conjunctiva, some chemosis, several nebulous spots dispersed throughout the cornea were present. The iris was discolored and the aqueous humor of a straw color; the pupil was dilated, and its lower margin dragged downward nearly to the periphery of the cornea. A high degree of iritis still remained, and severe pain. The lens was densely cataractous, and its substance disseminated and swollen by the imbibition of aqueous humor; this was the occasion of the intense pain suffered. Removal of the useless and offending globe at this juncture would undoubtedly have afforded relief of agonizing pain, and at the same time removed all possible danger to the integrity of the other from this source—perhaps the extraction of the cataractous lens might have sufficed; but he positively refused all instrumental interposition, even the slight operation of puncture of

the cornea. However, by the diligent employment of palliative means, in the course of three days almost total relief of pain was secured. By its happy cessation he was beguiled into the conviction that treatment was no longer required, and on the fourth day of treatment he declared his intention of returning home on the morrow. This intention, contrary to the advice of friends and my own most earnest protest, he carried into execution. Apprehensive of those possibilities incarcerated in the eye now lost, I charged him, as he valued the vision still retained unimpaired in the other, in which was involved his future well-being, to report accurately his condition after the lapse of a week or ten days; this he faithfully promised to do, and in addition if at any time thereafter he experienced increased pain in the globe now lost; or if vision in the other should in any degree become impaired; or if in it he should ever suffer pain, I charged him to lose no time in seeking competent advice and appropriate treatment. To this injunction also he of course assented. Having returned home, and the pain having subsided under the use of means advised, he was induced to believe that the storm had forever passed, and with it the obligation or the utility to fulfill the promise to report his condition. On March 2d, while surveying, he was all day exposed to a cold rain and became thoroughly drenched. In the evening the *injured* globe became inflamed and painful, and during the same night intense pain supervened in the right eye also. Indistinctness of vision, which during the three weeks immediately preceding had occurred at intervals, now returned with greater frequency and intensity. Justly alarmed, he immediately applied to his family physician, who for his relief, pursued a simi-

lar course as before. The pain, now greatly increased, was regarded and treated as "*neuralgia*" by palliatives. Vision, notwithstanding, continued to fail; of this he was positive and so informed his medical adviser. To this the Doctor replied: "Oh no, it is not so, you are only nervous; when the weather becomes warm and fine all will come round right." Being convinced that he was rapidly losing his sight, and unless something more effectual was employed to arrest the disease, he would soon become entirely blind, and oppressed with keen apprehensions that he had even now too long deferred compliance with my directions given him two months before, he returned to St. Louis on February 7. Upon examination I found no essential change had taken place in the eye originally affected, except that it had undergone considerable atrophy; but in the right eye was now read the unmistakable prophecy of its future. Sympathetic ophthalmia was already in it inexorably established. That ominous orange-red tint of the sclera, pathognomic of this condition, was now present in both eyes. Severe pain was experienced in the ciliary region of the right eye, especially at the point corresponding to the site of the original injury in the left. With these symptoms was associated pain in the forehead and temple and other parts supplied by the trigeminus. The conjunctiva of right eye was intensely congested, cornea at its periphery opaque, aqueous humor discolored, iris of a muddy and dark hue, pupil much contracted and margin extensively adherent to the capsule of the lens, and lymph effused into its area. One prognosis only could of course be given, and that unfavorable in the highest degree. Too late! of this he was informed, and his friends also in terms more fully

expressed. I enucleated immediately the left atrophied globe, from which operation great relief of pain was obtained, and by the diligent use of appropriate means, in the course of the ensuing three weeks, vision in the right eye much improved, and he began to indulge the buoyant hope of a speedy restoration. But these hopes were delusive, for all the symptoms directly assumed increased intensity, and in spite of all remedial means the disease terminated in virtual blindness. Had our patient consented to enucleation of the offending globe on first presentation, the right eye would have escaped the fatal complicity which ultimately destroyed its integrity; or had he complied with my injunction to make report, then I could have advised him from time to time as to the course best to be pursued; or had he even returned to me as soon as he observed pain or indistinctness of vision in the right eye, he probably would now be in the enjoyment of useful vision. If it be true that "procrastination is the thief of time," then it is equally true that it also is the thief of vision. Or had his physician correctly interpreted the significance of the pain on the night of its fatal invasion, and either himself have enucleated the eye, or ordered him to another who would have so done, his name to-day might not find record in the catalogue of the blind. I may remark in passing, that some degree of hazard attends the retention of an atrophied globe. To such a degree is this estimated by many ophthalmic surgeons in Europe, that its early enucleation is not only advised, but insisted upon. No harm can result from the operation, and exemption from *all* danger to the other eye from this source, is thus forever removed. Certainly

it should be performed as soon as the earliest symptoms of reviving disease are manifested.

Another case will farther illustrate the necessity of duly appreciating the significance of pain, among the premonitory symptoms, as the rumbling and moaning of subterranean forces presage the coming eruption.

Miss H——, aged twenty-one years, lost vision in the right eye twelve years since, by a blackberry thorn accidentally forced into it. Panophthalmitis (probably) soon supervened, and, as she expressed it, the eye burst and run out. Ever after the stump gave occasional pain, and the capabilities of the left were enfeebled. In October the left, without obvious cause, began to occasion considerable pain; but at Christmas it had quite recovered, apparently, its integrity. But about January 1st vision in it began perceptibly to fail. Communicating this fact to her physician, he replied, "It could not be so," attributing her fancied condition to her fears and perhaps somewhat to the weather, and that when it became warm and settled she would improve. Vision notwithstanding continued to decline, and with great rapidity, during the month of May. On June 2d she was first seen by me. I will not trespass upon your time by a narration of details. A glance alone was sufficient to detect and comprehend the situation. The pent up agencies dormant and comparatively harmless prior to January 1st then burst their confines and, insidiously penetrating the integrity of the left, involved it in a like fate; for sympathetic ophthalmia had now done its work, and the golden opportunity had passed. Now, in this case, had the significance of the pain been duly appreciated and the useless and offending globe enucleated in December, at which time

there was a temporary cessation of the symptoms, doubtless the calamity impending the left would have been averted, and perfect vision be now enjoyed. But the omens of nature received no intelligent recognition; the voices which had been speaking through the previous months were unheeded, and that fell series of causes and effects permitted to complete that dire succession which knows no termination but in blindness.

But happily, there is another side to this picture, diversified with brighter prospects and pleasanter results; but they come not of their own accord, but through anticipation of the coming storm, and the timely adoption of prompt measures to resist it.

A little girl of seven years of age was brought to me suffering from traumatic panophthalmitis of the right globe, occasioned by the penetration of an arrow armed with a steel rod through the sclera and ciliary body. The usual appearances were present. The left eye had already begun to sympathize in the affection of its fellow, evincing much photophobia and other symptoms pathognomic of threatened sympathetic ophthalmia. Immediate enucleation was performed on the same day of presentation. On the day following, all the ominous indications had subsided, and on the next day she returned home secure from all danger in future. Had this operation been postponed, for even a short period, doubtless blindness would have been the penalty.

Again, but a few days since a man aged fifty-four years consulted me respecting his left eye, lost in August last, from idiopathic inflammation of the cornea. Staphyloma has resulted and prominent to such a degree as to prevent the ready approximation and closure of the lids. From the consequent irritation he

suffers much from a smarting pain. The right for several weeks has manifested signs of complication, by lachrymation and inability to use it with freedom and ease. Application of it in reading, even for a few minutes, occasions increased secretion of tears and a vague sense of fatigue,—significant precursors of sympathetic ophthalmia. Unhesitatingly I advised and performed enucleation. Improvement in the eye retained was very appreciable on the following day, and on the seventh he read with it uninterruptedly for three hours, without the least inconvenience or recurrence of the symptoms formerly experienced.

But I must not longer trespass. I cannot too earnestly insist upon prompt and decisive action in encountering the very beginnings of these evils. In no department of our art is this injunction more imperative than in the treatment of diseases of the eye. In diseases affecting other parts of the body, time may be enjoyed for the rectification of errors of judgment or of action; but not so in the diseases to which I have directed your attention, belonging to that category, the most formidable which the surgeon is called upon to combat. To each of them is attached a "Rubicon" of opportunity and of inevitable sequence in strict accordance therewith. If this critical period is passed in the diligent employment of the appliances at our command, the joy and the reward of restored vision is conferred: if, on the other hand, through neglect or incapacity it be passed, withholding the resources of our art, inevitable blindness is the result. To retrace then our steps is impossible; regrets are unavailing, and the Nemesis of an accusing conscience will forever haunt our professional career.

I trust none will be so illiberal as to impute to me

arrogance or assumption: for if aught should be accorded to experience, then surely the observance of these diseases for the period of twenty-two years should entitle me to speak with earnestness and decision. I affirm without fear of contradiction, that if the appliances of modern surgery were more faithfully and timely employed, many, otherwise doomed to blindness, would be rescued from the calamity threatened. 'Tis not therefore that means and modes are wanting: the armory of surgery is not poor in resources: it is abundant enough: 'tis the faculty, to detect the lurking foe, to decide the when and the how, and the skill to invoke and employ those appliances that are wanting. The astounding fact revealed by the last U. S. census, that the number of the blind in the State of Missouri increases in a ratio double that of the population, is a commentary not very flattering to our art. Of what avail is recorded experience if not appropriated by another; or to what purpose the agony of effort to plant the standard beyond the "ultima thule" of our predecessors, if the fruits thereof are not to be garnered and utilized for the benefit of our fellows? In general, diseases are the same, and their effects the same now, as those witnessed centuries since by the early fathers of medicine and surgery: but how different now the results achieved through improved methods of treatment. Improved modes and habits of life, during the last two centuries, have increased human longevity nearly one hundred per cent. Where, then, is the diminution in the ratio of increase in the number of the blind, through the improved modes of treatment of the diseases that occasion it, which we know have been elaborated? Where, then, lies the responsibility of this vast increase? In no epidemic of ophthalmia during these

years can we find satisfactory solution, for none has occurred. Nor can it be attributed to unwonted virulence of the diseases then existing, for this peculiarity has not been observed. May I, in confidence, be allowed to express a candid opinion? I believe it to be due both to physician and patient: to the former on account of his inaccurate observation of the symptoms, and erroneous interpretation of them, and consequently to the misdirected effort in treatment predicated upon such diagnosis: on the part of the patient, because, unconscious of danger, and very often influenced by motives of parsimony or mistaken economy, or it may be of pecuniary inability as he may conceive, he suffers the precursory symptoms to pass unheeded, and neglects to seek surgical aid till the fangs of these affections have insidiously fastened upon and remorselessly ravaged the integrity of the organ. To these considerations I apprehend we are justified in attributing proximately the responsibility and occasion of the great increase to which reference has been made. But the investigation of the causes which have *induced* these defects, errors and incapacities, honest on the part of the physician they may be, involves a wider and more extended reach; it embraces the inadequate time devoted to the study of these diseases during the prescribed course; to the hasty and cursory manner in which this department of surgery is disposed of in our medical schools. How much of practical knowledge of it in comparison with the whole can be imparted in five or six lectures? If it is attempted to crowd into these half dozen hours a review of the entire realm of ophthalmology, I submit it, how much is it possible for any mind, however comprehensive, distended to its utmost by a multiplicity of other subjects, to receive and retain? To babes in

medical science, its principles must be exhibited in highly diluted forms in order to secure the proper assimilation. How then can the student be expected to appropriate the crude boulders of this science dashed in a deluge about his ears? If at the moment they be possibly understood, being *crammed* into his mind, a surgical surfeit and mental dyspepsia is induced, which in turn is prone to excite a disgust for this branch of science. Thus I have known many a young man emerge from the schools, armed with his diploma, and even stimulated by honest purposes, and go forth to put in practice that which he has so superficially acquired. I *do* not, I *would* not speak censoriously of the schools, nor of the men whom they thus honor; but to present facts—and a knowledge of defects is the first step towards their correction. Therefore, in my judgment, here lies a part of this responsibility arraigned, and from long observation of the practical results of these deficiencies I am convinced that the good of society would be vastly promoted by greater attention being given to ophthalmology in our medical schools.

In conclusion, gentlemen, since our profession is eminently one of humanity, and the confidence with the people which it shall enjoy depends upon the intelligence, skill and fidelity with which we practice it, I earnestly exhort all of us to advance to a higher appreciation of surgical phenomena, to a more accurate discrimination of causes and effects, and a more diligent employment of the appliances which the armamentarium of surgery affords.—*Read before the Missouri State Medical Association, June* 21, 1874.

620 Locust Street, St. Louis, Mo.

Correspondence.

CARBOZOTATE OF AMMONIA.

Editors JOURNAL:

I desire to invite the attention of your readers to a substitute for quinine. In malarial sections, such quantities of quinine are necessary that physicians will welcome the introduction of an antiperiodic, that will prove a valuable adjuvant to, if not a complete substitute for quinine. The objections to quinine are numerous, but the chief ones are cost, difficulty of administration, constitutional idiosyncracy, and last, not the least, the difficulty of getting a pure article. The inducement to adulterate is too great. The quantity of quinine necessary to prevent a paroxysm of pernicious intermittent, in this section, would astonish the physicians who accept the teachings of the Dispensatory, in regard to quantity. The small size of a dose of medicine is of no minor consideration to the party who takes it. Repeated disappointments in the effects of quinine last summer, induced me to experiment with a sample of carbozotate of ammonia, manufactured by G. Mallinckrodt & Co., St. Louis, Missouri. I have been using it constantly ever since, in a great many cases requiring the use of an antiperiodic, with more uniform success than I generally derived from quinine or arsenic either. Several of my cases seem to indicate that it arrests the paroxysms more completely than quinine. I have succeeded with it in cases of chronic quotian ague of long standing, while quinia, arsenic, and the whole catalogue of tonics and alteratives had been tested thoroughly. For ordinary chills so prevalent in the Southern states, I have ceased using quinia entirely. In order to test the virtues of the drug more fully, I divided my stock of the salt with another physician, who reports perfect success. In one case, however, it produced free emesis and intense cephalalgia, the effects of an overdose, probably. It is rarely necessary to give more than one grain twice daily, until I give six grains; before I obtain the proper effect, I have never had occasion to push the remedy to the extent of producing discoloration of the skin. I have not tested

its efficacy so thoroughly in remittents as I have in intermittents. But my observation, as far as it extends, proves it to be as effective in one form as the other. I have given it, regardless of febrile excitement, with impunity and with the happiest effect. The result of my experience is that while quinine possesses so many valuable and varied therapeutical properties, that it is not likely to be superceded by any other remedy, yet, carbozotate of ammonia possesses properties which renders it preferable to quinine in a great many instances as an antiperiodic, and is, therefore, worthy of further trial, especially by Southern physicians. W. C. Person, M. D., Air Mount, Miss.

Proceedings.

AMERICAN MEDICAL ASSOCIATION.

The twenty-fifth annual meeting of the American Medical Association, at Detroit, 2d of June, 1874.

The President, Dr. J. M. Toner, of Washington, D. C., called the assembly to order, and the session was opened according to custom with prayer. The calling of the roll made known the presence of a large delegation, among whom were many of the most distinguished members of the profession in the country.

The President's address was listened to with marked attention and approbation. The amendments to the constitution recommended last year were discussed and in part adopted.

The rules governing the reference of papers read before the sections are admirable, and must add greatly to the interest and value of the published transactions, if any papers are printed with the transactions besides *prize essays*, which is another question of interest to determine; we confess to a preference to offer two or three prizes of sufficient amount to warrant the original research requisite; and let all other papers read at the meetings of the Association go to medical journals

for immediate publication where they will be read, which suggestion we are pleased to credit to the Philadelphia *Medical Times.*

The following appointments were made:

The Committee on Nominations presented the following names to fill the offices for the ensuing year: President, Dr. W. K. Bowling, of Tennessee;· Vice-Presidents, Wm. Brodie, of Michigan; J. J. Woodward, United States Army; H. W. Brown, Texas; H. D. Didama, New York; Treasurer, Casper Wister, of Pennsylvania; Librarian, William Lee, District of Columbia; Committee on Library—Johnson Elliott, District of Columbia; Assistant Secretary, Wm. Walling, Kentucky.

The report of the Committee on Publication was read. The Treasurer reported that the volume of transactions is of much smaller size than formerly, a surplus of volumes remained on hand, which he was authorized to have distributed. The balance on hand in the Treasury is $1,938.48. The Treasurer and chairman of the Committee on Publication tendered their resignation, but the Society declined to receive them, and they were continued in office for the ensuing year.

The paper of Dr. Gross, of Philadelphia, on syphilitic diseases and their relation to the licensing of houses of prostitution, was referred to a committee consisting of S. D. Gross, N. S. Davis, Chicago; J. M. Toner, Washington; Marion Sims, New York, and John Morris, Maryland—with instructions to consider the subject and report at the next meeting of the Association.

The following standing committees were appointed:

Committee of Arrangements—Drs. Richardson, Smith, Gale, Holland, Bullitt, Keller, Yandell, Rogers, and Hewett—all of Louisville.

Committee on Prize Essays—Drs. Octerlooney, Yandell, and Jackson—all of Kentucky; Parvin and Stevens, both of Indiana

Committee on Publication—Drs. Smith, Atkinson, Preston, Wister, and Stiller—all of Pennsylvania; Lee, of the District of Columbia; Askew, of Delaware.

The following are the chairmen and secretaries of sections for 1875:

Section 1. Practice of Medicine, Materia Medica, and Phy-

siology—Austin Flint, New York, Chairman; J. K. Bartlett, Wisconsin, Secretary.

SEC. 2. Obstetrics and Diseases of Women and Children—W. H. Byford, Illinois, Chairman; S. C. Busey, of District of Columbia, Secretary.

SEC. 3. Surgery and Anatomy—S. M. Moore, Rochester, N. Y., Chairman; T. S. Latimer, Maryland, Secretary.

SEC. 4. Medical Jurisprudence, Chemistry, and Psychology—Jerome Cochrane, Alabama, Chairman; G. A. Moses, Missouri, Secretary.

SEC. 5. State Medicine, and Public Hygiene—H. J. Bowditch, Massachusetts, Chairman; H. M. Baker, of Michigan, Secretary.

Judicial Council—Dr. Talley, of South Carolina, for two years; Drs. Bartlett, of Wisconsin; Gale, of Kentucky; Johnson, of Missouri; Bronson, of Massachusetts; Catlin, of Connecticut; Staples, of Minnesota; Briggs, of Tennessee, in place of seven whose terms expire at this meeting. The rest of the present council are continued.

Dr. H. B. Storer was appointed chairman of the committee to report on American compared with foreign water-cures. Dr. Morris, of Baltimore, was appointed a special committee on the use of pessaries; Dr. Octerlooney, of Kentucky, on cystic degeneration of the kidneys.

After a brief interchange of complimentary remarks between Dr. Hall, of Toronto, on the part of the Canadian physicians, and Dr. Davis, of Chicago, on behalf of the American members, a hearty invitation was extended by Dr. Richardson, of Louisville, to the members of American and Canadian Associations, to attend the next meeting at Louisville.

The usual resolutions of thanks were adopted. Dr. Toner, of Washington, delivered the valedictory, and the Association adjourned to meet in Louisville, Ky., on Tuesday, May 1, 1875. The attendance has been very large—427 delegates being present, a large percentage of them being the older physicians of the country.

ASSOCIATION OF AMERICAN MEDICAL EDITORS.

THE annual meeting of editors of medical journals was held at Dr. Brodie's office, Detroit, Michigan, on Monday evening,

the first of June. The meeting was called to order by the President, Dr. W. K. Bowling, of Nashville, Tenn. The minutes of the last meeting were read by the acting Secretary, Dr. N. S. Davis.

The annual address was then delivered by the President, who was felicitous, both in his theme and manner of treating it. A copy was requested for publication, and appeared in full in the Detroit *Daily Post* of the 2d inst. Miscellaneous business being next in order, Dr. W. S. Edgar, of St. Louis, read a paper on "Our State Medical Schools," which elicited discussion and was also published in the Detroit *Daily Post* of the 2d of June.

The following officers were elected for the ensuing year: President, Dr. W. S. Edgar, of St. Louis; Vice-President, Dr. L. Conner, of Detroit; Secretary, Dr. F. H. Davis, of Chicago.

The Association adjourned to meet at Louisville, Ky., on the Monday evening previous to the meeting of the American Medical Association in 1875.

DISTRICT OF COLUMBIA MEDICAL SOCIETY.

Transactions of the Medical Society of the District of Columbia. Vol. 1, No. 1.

The above is the title of a new periodical (quarterly) issued by the Medical Society at Washington, and as recommended by the publishing committee of the Society: "3d. The committee recommend that the published report or bulletin be issued quarterly, and that it shall bear on its title the words"—as above indicated. It is an octavo of twenty-six pages, the first number bearing date of April, 1874.

Dr. Thomas Antisell reported the history of an interesting case of perforation of the vermiform appendix of the cœcum. The contents of the intestine escaped into the peritoneum, where a sacculated abscess formed, which was opened externally, discharging amongst its contents two silver-coated quinine pills which had been taken some days previous. The specimen of intestine was exhibited.

Dr. Millur reported a case of congenital malformation of the diaphragm, in which death was caused by the stomach, spleen, and a portion of the intestine passing upwards into the chest, compressing the heart and lung. The patient, a boy aged fif-

teen, died suddenly while lying in bed. The opening (three inches by two and a half) was large enough to permit the viscera, before mentioned, to pass easily in and out without strangulation. The boundary of the opening was ligamentous.

Dr. Carr also read the synopsis of five cases of congenital diaphragmatic hernia, all occurring on the left side.

Dr. Liebermann gave an account of several cases of intestinal intussusception, resulting from violent anthelmintics. In speaking of the treatment of worms in children, he thought the management of such cases had been left too much in the hands of old women and apothecaries. He did not believe in the expulsion of the worms by violent anthelmintics, such as turpentine, wormseed oil, and the various patent vermifuges; it is far better first to weaken or destroy them in the intestine, and then, in the course of five or six days, clear them out by some mild laxative. He was in the habit of using in these cases a dose of *semen santonici* every morning for three days, followed on the fifth or sixth day by castor oil or the confection of senna.

In one instance two children had died in one family after taking a patent vermifuge medicine administered by the mother. The Doctor was called to attend the third one, who had been previously subjected to the same treatment and also died. No *post-mortem* examination was allowed on the first two, but in the third intussusception of the bowels was discovered with sixteen large worms immediately above the obstruction.

Another instance was related in which a boy and a girl of the same family, aged respectively nine and eleven years, died from intussusception occasioned by taking "Fry's Vermifuge" for the destruction of worms. The bodies were both examined, the strangulated intestine removed in each case, and both specimens were exhibited to the Society by Dr. Liebermann. In two cases of intussusception relief was obtained after the administration of quicksilver.

Dr. Wm. P. Johnston reported a case of congenital atresia of the œsophagus. It did not communicate with the stomach, but terminated in an impervious *cul de sac*. There was a communication between the stomach and bronchial tubes. The child nursed well, but the milk was always regurgitated after a short time. The child died from inanition on the eleventh day after birth.

Remarks were then made upon the proper management and feeding of children immediately after birth. The questions were discussed by Drs. Thos. Miller, W. P. Johnston, Liebermann, F. Howard and Toner, the general ideas seeming to be—1st, that the infant took the breast purely from instinct, and not from any sense of hunger; 2d, that the proper time for applying the child to the mammæ was in a few hours—from one to eight, *pro re nata*—after delivery; and 3d, that no food, drink or medicine of any kind whatever should be administered to a healthy infant with a view of preventing colic or starvation.

Dr. Johnston presented three specimens taken from the same patient showing congenital constriction of the intestinal canal. Shortly after birth the infant vomited bile, its abdomen was distended, but there was no bile in the fœcal evacuations; hence, the case was diagnosed stricture below the duodenum, which was confirmed at the autopsy. An impassable stricture was found near the commencement of the ilium, the intestine immediately above it being greatly distended, and contained nearly half a pint of blood. Several other constrictions were observed lower down in the intestinal tube.

Attachment of the Umbilical Cord near the Margin of the Placenta.—Dr. Johnston exhibited a twin placenta obtained from a primipara under the following circumstances: A six months fœtus, which had been some time dead, was first delivered, and followed in a few minutes by a second which was larger and more fully developed than the first, and had been dead only a few days. He called attention to the fact, which he had often observed in practice, that when the umbilical cord was inserted, at or near the center of the placenta, the child was relatively large and well developed, but when near the circumference the fœtus was smaller and sometimes more or less emaciated. In the specimens presented, the cord was attached very near the middle of the placenta in the larger child, but in the smaller child it was attached to the membranes near the afterbirth, a few small blood-vessels being its only connection with the substance of that organ.

The above are in brief some of the many cases of more or less interest contained in this "Bulletin." We shall be glad to see the numbers as they appear in the future.

CENTRAL DISTRICT MEDICAL ASSOCIATION.

TIPTON, Mo., May 12th, 1874.

In pursuance to a call made at a previous meeting, the Central District Medical Association of Missouri met at the office of Dr. J. W. Brent. On motion, Dr. Brent was called to the chair and Dr. F. M. Woodfin chosen Secretary.

The following names were enrolled:—H. C. Gibson, P. L. Hurt, J. D. Myers, Wm. Hooper, Wm. Redmond, J. W. Brent, W. F. Hubbard, J. M. Dunlap, J. B. Thomas, F. M. Woodfin, H. W. Latham, J. G. Calhoun, J. W. Norman, J. Harwood, and Waid Howard.

On motion the Society went into permanent organization, and a ballot being had, Dr. J. W. Brent was elected President for the ensuing year; Dr. Howard, Vice President; F. M. Woodfin, Recording Secretary and Treasurer, and J. D. Myers, Corresponding Secretary.

On motion of Dr. Myers, it was resolved that this Society be known as the Central District Medical Association of Missouri.

It was further resolved that we meet regularly every alternate month. The next meeting to be held in the city of Boonville, on the second Tuesday (the 9th) of July.

On motion, this Association adopted the constitution and by-laws of the St. Louis Medical Society. The following committee was then appointed to revise said constitution and by-laws, viz: Drs. Norman, Dunlap and Harwood.

Special committee to revise Sec. 13 of said by-laws: Drs. Gibson, Redmond and Myers.

On motion this Society adopted the code of ethics of the American Medical Association.

The following committees were appointed:

Executive—F. M. Woodfin, Waid Howard and J. D. Myers.

Elections—H. C. Gibson, J. M. Dunlap, Wm. Hooper, Wm. Redmond.

Publication—J. W. Norman, W. F. Hubbard, J. B. Thomas, J. G. Calhoun.

Ethics—Waid Howard, J. G. Calhoun, P. L. Hurt, H. W. Latham.

On motion, Dr. P. L. Hurt was appointed a special committee to correspond with the Saline County Medical Society, to extend to them an invitation to join us in our District Association. The

President was appointed a similar committee to correspond with the Pettis County Society for the same purpose.

On motion, the initiation fee was fixed at one dollar, and the annual dues one dollar.

Drs. Woodfin, Hooper and Myers were appointed to read essays at the next meeting.

On motion the Society adjourned.

F. M. WOODFIN, *Sec'y.* J. W. BRENT, *Pres't.*

Reviews and Bibliographical Notices.

THE MEDICAL PROBLEMS OF THE DAY. An address by Dr. Nathan Allen. Read before the Massachusetts Medical society, June 3d, 1874.

We have read with interest this discourse. Criticism being invited particularly as to the law of *Human Increase* (if there is such law), we would most respectfully enquire of the Doctor, what of the fact that nearly every young, intelligent wife, after having *one child* (if not before), wants to know how she may be spared the pain and trouble of another? and soon learns of the "fifteen day rule," *i. e.*, to avoid exposure from a few days *before* the catamenia appears to a few days *after*, making the period of abstinence fifteen days; there being no possible objection to this observance on religious or hygienic grounds, it is tried, and meets the indication *three times out of four*; the women not served by this precaution, cast about for other means, most of which are more or less hurtful; nevertheless they must and do serve the desired purpose. Why seek the cause of the reduction of the average family so *distant*, when a sufficient cause is so *near* and operative? And it is all a mistake to confine this *small family* business to New England, it is equally prevalent in the towns and cities the country over.

It has become simply a matter of choice with the intelligent, whether they will have one, two or six children. If they are

not situated to incur the additional expense, or if they count the care too onerous, they straightway ascertain how to avoid it with the least inconvenience, and in our observation, this holds in the families of the intelligent foreigners, as well as native born. As a people become thoughtful and intelligent, will they weigh the chance for happiness by having a large or small family of children.

Also it is not to be denied that men of genius and means find opportunities from early manhood to gratify their procreative passions to a deleterious extent, *i. e.*, to so exhaust their physical stamina as to be unable at meridian manhood to produce a perfect vital germ; thus many cases of sterility are due and chargable to the husband's "youthful indiscretions" (as popularly expressed), rather than too much genius. It is the *little* knowledge on these subjects that is dangerous; a more perfect knowledge of the laws of health and of physiology, possessed by the young, should stay these excesses and preserve the vigor of these organs through the natural period.

We suggest that one achievement of advanced civilization may be, to regulate the number of offspring according to circumstances, health of the parents, etc.; that the uprising generation may be more vigorous, and free from inherited disease than that which preceded it, which must be regarded of greater importance than increase of numbers. It is for want of *strong men*, intellectually and physically that a nation may fear decline, rather than want of numbers.

If human society should ever attain to that perfection to be expected from the universal prevalence of Christianity, and observance of the laws of hygiene, it would not be difficult to estimate the time when the race could not be subsisted on the earth. When that time comes (and we believe it will), the wisdom which secures a healthy, vigorous existence, will see to it that in a manner consistent with religion, morality, reason and common sense, no more children are born than will find *room* for a successful and happy existence. We hope the Doctor will continue his studies.

LECTURES ON THE DISEASES OF INFANCY AND CHILDHOOD. By Charles West, M. D. Fifth American, from sixth revised and

enlarged English edition. 8vo. pp. 658. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

As former editions of this work are to be found on the shelves of almost every medical library in the country, and the favorable opinion of the profession has long been known concerning its merits, we have pleasure in announcing a new edition, and may state concisely, the additions and changes made in this edition, in the author's words. "Seven years more of clinical observation, and the records of 743 more cases and of 181 more post-mortem examinations, have, it may be hoped, enabled me to add something to the value of the work. I have striven not to increase its bulk, and have omitted much that seemed to me less important, in order to obtain space for the additional matter of greater moment, still, more than thirty pages have been added."

We confess to a little disappointment not to find a chapter on cholera infantum in this American edition; a disease by which nearly half of our infants die in the cities of this country, still, as Dr. West confines himself to his bed-side observations, and would not see it in London but to a very limited extent, if at all, the omission is evidence of his fidelity, rather than derilection, to write of what he sees, and leave others to write of what they see and treat. The type is clear, but the paper not as good as we like to see so valuable a standard work printed on.

A TREATISE ON PHARMACY; designed as a Text Book for the Student, and as a Guide for the Physician and Pharmacist, containing the Officinal and many Unofficinal Formulas, and numerous Examples of extemporaneous Prescriptions. By Edward Parrish, late Prof., etc. *Fourth Edition*, enlarged and thoroughly revised, with 280 illustrations. By Thos. S. Wiegand. 8vo pp. 977. Henry C. Lea, Philadelphia, 1874.

[For Sale by the St. Louis Book & News Co]

From its first appearance in 1856 this work has been placed at the head of all works treating of Pharmacy. Much of its popularity has been owing, no doubt, to its conciseness and practical character, no detail connected with shop work being thought of too little importance to be worthy of the notice of the author. Hence it has become an authority and *vade mecum* among apothecaries. To bring the work up to the present status of pharmacy,—in consequence of the demise of its

lamented author—the work of revision was undertaken by Mr. Thos. S. Wiegand. This labor has been onerous,—and when we consider that the work has in many places been re-written and altogether re arranged, we cannot too highly praise the conscientious care, and patient labor, bestowed by Mr. Wiegand on its revision.

The only part of the work that seems to us objectionable, and which we think might have been left out altogether, without detriment to the work, is that portion of Part V, Chap. XV, which treats of perfumeries, toilet articles, etc. As a rule the physician has no need for theoretical or practical instruction in this art. If he has use for them, he can buy them much more cheaply, and procure better articles than he can make. And the apothecary can find equally as valuable formulæ and more of them in the works of Piesse, Dussance, Beasley, etc.,—to say nothing of the numerous receipt books, cyclopœdias, etc. A work on pharmacy should treat exclusively of pharmaceutical subjects; and the side-shows, so to speak, should be discountenanced.

The mechanical execution of the work is all that can be desired. P.

BOOKS AND PAMPHLETS RECEIVED.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis. Designed as a Manual for Students and Practitioners. With engravings and cases. By W. H. Van Buren, A.M., M.D. and E. L. Keyes, A.M., M.D. New York: D. Appleton & Co., 1874.
[For sale by Gray, Baker & Co.]

What Effect does Syphilis have upon the Duration of Life? By Fred. R. Gturgis, M.D.

The Treatment of Uterine Flexions. By Ely Van De Warker, M.D., Syracuse, N. Y.

The Union University Catalogue, 1873–4. From the Albany Medical College. Albany, N. Y.: J. Munsell, printer.

A CATALOGUE OF THE OFFICERS AND STUDENTS OF THE UNIVERSITY OF VIRGINIA. Fiftieth session, 1873–4.

MEDICAL PROBLEMS OF THE DAY. The Annual Discourse before the Massachusetts Medical Society, June 3d, 1874. By Nathan Allen, M.D., LL.D. Boston: A. Williams & Co., No. 135 Washington St.

THE RURAL SOUTHERN. (Formerly Wilson's Herald of Health.) Devoted to Agriculture, Horticulture, Domestic Economy, etc., etc.

AN ADDRESS. Delivered before the South Carolina Medical Association, at its annual session held in Columbia, S. C., March, 1870. By A. N. Talley, M.D.

TRANSACTIONS OF THE MINNESOTA STATE MEDICAL SOCIETY, 1874. St. Paul: John J. Lemon, printer.

ELECTROTYSIS IN THE TREATMENT OF STRICTURE OF THE URETHRA. By Robert Newman, M.D. New York: T. L. Clacher, 1874.

Extracts from Current Medical Literature.

Infant Diet. By A. JACOBI, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York.

Of the Nursing Infant: "But a much more frequent occurrence (than the increase in the normal percentage of salts) is too large a percentage of casein in mothers' milk. * * Casein will be curdled in hard masses, or will pass into the intestines in the same condition, and be evacuated almost unchanged, or covered, perhaps, with bile, a little viscid mucus, sometimes, even, with a streak of blood. * * The indications are either preventive or curative. The increase of casein is frequently accompanied by a diminution of sugar, and the absolute neutrality may be replaced by a faint acidity; and the effect is constipation. * * I remove it (the constipation) in many instances, by simply

adding a moderate amount of sugar to the normal food. * * One or two scruples of loaf-sugar are dissolved in one or two teaspoonfuls or more of tepid water, and given to the baby just before nursing. * * The next indication is, to prevent the too sudden effect of the gastric juice upon the surplus casein, and keep it from coagulating in hard masses. * * Instead of the sugar-water mentioned above, I give the baby each time before it is put to the breast, a tablespoonful or more, according to age, of strained and well-sweetened oatmeal, for reasons, and prepared in a manner, I shall designate hereafter. * * For this plan, also, which has been serviceable in many cases where the former simple one would not suffice. I claim good theoretical reasons, and the result of various, and, I believe, unbiased observation of a long number of years. * * The third indication is curative, and refers to the correction of the excess of acid of any origin that may exist in the digestive organs. * * The main concomitant symptoms of acidity are either constipation or diarrhœa, the principal alkalis in question, preparations of potassa, soda, lime, or magnesia. * * Wherever neutralization is required in a case of constipation, we should resort to magnesia, soda, or potassa; whenever we have to deal with a diarrhœa, carbonate of magnesia would be indicated. Whenever no decided indication was to be followed, we might select either of soda or potassa, the bicarbonate or the carbonate; the latter, however, when given in large doses, is too ponderous and less digestible than the former." (pp. 11-14.)

"*Artificial feeding*, cannot be successful without milk. * * * Where the choice is given, therefore, cow's milk ought to be preferred. * * There is in cow's milk less sugar, less of free alkali, less butter, but more, and more coagulable, casein. * * Practically, when a relative deficiency of sugar in cow's milk is to be supplied, loaf sugar always answers the purpose. * * It is advisable to add an alkaline salt, (the carbonate or bicarbonate of potassa or soda) to the cow's milk, and best at once when the milk is put aside for the infant's use. * * Thus I add one or two grains of either of the salts to every meal of the new-born, besides a small quantity of common salt—chloride of sodium—and a larger dose in proportion to age. * * Cow's milk ought to be cooked at once, in order to keep it as long as possible from turning sour, and ought to be preserved in

a cool place, if not in an ice-box. * * Next in order, is the question how to prevent the great coagulability of the casein of cow's milk; I add, instead of water, a substance, which, by its physical consistency and cohesion, is apt to hold milk in suspension. Thus I mix, say, quite thin and transparent mucilage with (boiled and skimmed) milk, and add the desirable quantity of sugar and salt, or soda. * * Looking for a substance which, while fulfilling that object, is absolutely indifferent, from a chemical and physiological point of view, it is gum arabic. * * An indifferent substance of this sort may be all that is desired for very young infants; * * The selection of articles of food, which are, at the same time, of a mucilaginous consistency, and nutrient, is perhaps, not so difficult as it appears to be. * * Barley and oat meal are the two substances I mostly employ. * * A teaspoonful of either is boiled in from three to six ounces of water with some salt [a pinch] for twelve to fifteen minutes, the decoction is to be quite thin for very young infants, thicker for later months, and then strained through a linen cloth. Infants of four to six months are to have equal parts of this decoction, which ought to be made fresh for every meal; and (boiled and skimmed) cow's milk and sugar is to be added. * * The desire of parents to procure the milk of one special cow for their infants, I believe to be based upon a mistake. * * I have always advised the plan of giving the average milk of a farm, and have never been sorry for the results, in all parts of the city." (pp. 14-31.)

GENERAL RULES.

1. About Nursing Babies.—"Overfeeding does more harm than anything else. Nurse a baby of a month or two every two or three hours.

"Nurse a baby of six months and over, five times in twenty-four hours, and no more. When a baby gets thirsty in the meantime, give it a drink of water. *No sugar.* In hot weather (but in the hottest days only), mix a few drops of whisky with either water or food, the whisky not to exceed a teaspoonful in twenty-four hours.

2. About Feeding Babies.—"Boil a teaspoonful of powdered barley (grind it in a coffee-grinder) and a gill of water, with a little [a pinch] salt, for fifteen minutes, strain it, and mix with

it half as much boiled milk, and a lump of white (loaf) sugar. Give it luke-warm through a nursing bottle.

"Keep bottle and mouth-piece in a bowl of water when not in use.

"Babies of five or six months: half barley-water and half boiled milk, with salt and white sugar. Older babies, more milk in proportion.

"When babies are very costive, use oatmeal instead of barley. [Add from three to six grains of bicarbonate of soda to each evening meal, for a few nights.] Cook and strain.

"When your breast-milk is half enough, change off between breast-milk and food.

"In hot summer weather, try the food with a small strip of blue litmus paper. If the blue paper turns red, either make a fresh mess, or add a small pinch of baking-soda to the food.

"Babies of ten or twelve months may have a crust of bread and a piece of rare beef to suck.

"No child under two years ought to eat at your table. Give no candies; in fact, nothing that is not contained in these rules, without the doctor's order.

3. About Summer Complaint.—"It comes from over-feeding, and hot and foul air; never from teething. Keep doors and windows open. Wash your children with cool water at least twice a day, and oftener in the very hot season.

"When babies vomit and purge, give nothing to eat or drink for four or six hours, but all the fresh air you can. After that time you give a few drops of whisky in a teaspoonful of ice-water every ten minutes, but not more until the doctor comes. When there is vomiting and purging, give no milk.

"Give no laudanum, no paregoric, no soothing-syrup, no teas."

The use of Pepsine in the Diarrhœa of Infants. By JAMES S. HAWLEY, M. D., Brooklyn, New York.

"Premising then, that the great predisposing cause of infantile diarrhœa is the state of evolution which the digestive system and its dependencies are undergoing during the period of dentition, the question of therapeutics becomes one of comparative simplicity, and the evident duty of the physician is to allay that irritation of the organs which is exhibited in vomiting and purging; first, by the removal of all extraneous sources of dis-

turbance, such as food, improper in quantity and quality, by protecting the skin from too sudden and frequent changes of temperature; secondly, by sedatives, to subdue the excitement which the foregoing causes may have induced, and which, in the enfeebled condition produced by the transition state, are self-propagating; and, lastly, to impart to the struggling and overwhelmed digestive apparatus, that assistance which will enable it to convert food from the character of a foreign, and therefore irritant material, into nutriment which will re-invigorate the natural forces and enable them to accomplish successfully the great and necessary evolution through which they are passing. Happily, the practice of administering excitants to the already over-stimulated glandular system has passed away. *Hydr. cretæ.* and *hydr. chlor.* are therapeutical formulæ, seldom penned by one who opens his eyes to the light of physiological or rational therapeutics in infantile diarrhœa. As sedatives to the over-excited mucous membrane, and glandular system of the stomach and bowels, the preparations of opium and the salts of bismuth stand pre-eminent. When irritation without pain exists, bismuth most promptly and satisfactorily allays it; but when accompanied with pain, the addition of a minute portion of opium becomes a necessary complement to its effectiveness. * * But the circle of remedies is not complete. * The *ingesta* themselves become, for want of digestive and assimilative power, irritants to the sensative and debilitated organs. * * * * Tonics and stimulants, as indispensable as they often are, here become awkward and doubtful. * * Here the happy thought of Corvisart comes to our relief. The very function which is crippled, we can replace; the very strength which is exhausted, we can supply. By the administration of pepsin, we at once convert the ingesta into nutriment. * * Now we have fulfilled all the indications. First, to remove all sources of irritation from the quantity or quality of the ingesta, or change of temperature. Secondly, allaying irritation by sedatives. Thirdly, artificial digestion by the administration of pepsine." (pp. 4-7.) Twenty-two cases are reported (from his own practice and that of two medical friends), varying in ages from two weeks to two and a half years.

The usual formula was, for a child six to twelve months old: "℞. Am. Pepsine, Subnit. Bismuth, āā, ʒi, in ten powders, one

to be given every three or four hours." If there is pain, add one-twelfth of a grain of opium to each powder; or, one drop of tinct. opii. to each dose. Older patients require rather larger doses. Dr. R. E. Van Gieson says, "I have found pepsine peculiarly fitted for the treatment of that fearful scourge of children, cholera infantum, *after* the more profound and violent initial symptoms have been subdued by direct sedatives, such as hydrocyanic acid, ice, creasote and the like."

One child died in three days, having been under other treatment in other hands for some time.

Treatment of Hay-Fever.

Helmholtz's discovery of vibriones in the nasal secretion in hay-fever, and his successful treatment of his own case by the injection of a neutral solution of quinine in nasal cavities, were facts not unknown to me. I was not, however, aware that it in consequence of reading a notice of Binz on the poisonous action of quinine on infusoria, that Helmholtz resorted to this method of treating the disease. I would suggest another remedy, viz: solution of camphor for this disorder, founded upon the same experimental data. My friend Mr. Anningson, assistant to Prof. Humphrey, showed me a short time ago the poisonous effect of a solution of camphor upon some infusoria, chiefly paramœcia. This solution produced a perfect cessation of movement in them. It occurred to me at the time that the value of a strong solution of camphor, frequently and for sometime sniffed up the nose in the early stage of coryza, might depend upon the camphor destroying some low organisms which most probably produce this complaint. On this hypothesis I would also recommend a strong solution of camphor, similarly applied to the nose in hay-fever. * * * I may add, in conclusion, that the most efficacious remedy in hay-fever, as far as my experience goes, is the application, by means of a camel's hair pencil, of tincture of opium to the interior of the nose. I can also speak highly of the internal administration of arsenic. —(J. B. Bradbury, M. D.,) *British Medical Journal.*

Convulsions in an Infant, due to abuse of Alcohol in the Nurse. By M. VERNAY. (*Lyon Medical*, 1873.)

The author related a very striking case of the mischievous consequences which may result from the abuse of wine drink-

ing in a nurse. A child was taken with convulsions, and during five days all sorts of means, like calomel, bromide of potassium, the hot-bath, musk, belladonna, etc., were uselessly employed. M. Vernay was eventually told that the nurse drank six or eight glasses of French wine in the day, and had some more at night. It occurred to him that the convulsions in the child, might be due to the quantity of alcoholic liquid thus absorbed by the nurse. The wine was ordered to be stopped, and the convulsions ceased immediately after.—*Amer. Journal Obst.*

Diphtheritic Angina.

Dr. Bucquoy (*L'Abeille Méd.*, April 27th) gives some clinical remarks on a patient in the Hôpital Cochin. Patient æt. 29, entered the hospital on February 4th. She sat up in bed greatly agitated, spitting frequently, and with difficulty, with painful deglutition. The velum palati, the tonsils, and the pillars of the fauces were covered with false membrane of consistence thick enough to almost completety hide all the parts, especially on the right side. On this side there was considerable swelling of the sub-maxillary glands. The fever was moderate, pulse 104, temperature 38.2° C.

The false membranes were a centimetre in thickness in some places, and easily detached, when the mucus membrane was found red, swollen, slightly bleeding, but without ulceration, the epithelium alone being absent. In the progress of the case a sero-sanguinolent secretion was seen from the nostrils. The vocal cords were red only on their external aspects. There was incomplete paralysis of the velum palati. The patient recovered. Such anginas come on very insidiously. The false membrane forms some hours after the *début* of the disease, and the enlarged gland is noticed on the side affected, indicating the gravity of the disease. Respiration is not much impeded so long as the disease has not gone further than the pharynx. Coryza often exists, and this is often fœtid.

In pultaceous sore throat after scarlatina there is seen in the posterior part of the mouth a white matter, pulpy and cheese-like, which is easily detached without leaving the mucous membrane bleeding; there is no tendency to attack of the respiratory passages, nor to reproduction.

The diagnosis is more difficult between herpetic sore throat and diphtheria.

The palsies which result after diphtheria are amblyopia, mydriasis, strabismus, paraplegia.

Cautery, with hydrochloric acid, is useful, or with solution of nitrate of silver, or lemon juice, wine, brandy, coffee, quinine, and nourishing food.—*The Doctor.*

Oxygen.

M.M. Croce-Spinelli and Sivel have lately found that they can ascend to much greater heights in balloons by breathing oxygen with the rarefied air.

M. Gaudin, referring to this, tells the Paris Academy of Sciences that in 1832 cases of cholera were saved by employing oxygen, which brought on reaction from collapse. M. Gaudin says he has often taken oxygen enough to produce effects similar to those excited by champagne, and that then, in addition to a feeling of well-being, he has observed that he could hold his breath for five minutes without bringing on any sensation of suffocation.

If this should be found a common result, the inhalation of the gas would be of great service to pearl-divers and others.—*The Doctor.*

Chloralum in Cholera.

The internal use of chloralum in cholera is highly recommended by Dr. Henry Blanc, surgeon in the Indian army. His mode of administration was, one part of liquid chloralum to twenty-five parts of water, and directed an ounce of the mixture to be given every half hour: also that an enema containing sixteen ounces of the mixture be administered every hour. Undiluted chloralum was sprinkled on and around the bed. Remedy given less frequently as the reaction became more completely established.—*Lancet.*—*Braithwaite.*

Diarrhœa of Children.

Oxide of zinc is a remedy of value in children's diarrhœa. It should be given in doses of 2 grains every three hours, mixed with mucilage and a little syrup.—(M. W. Berry, Practioner.) —*Ibid.*

Cleft Palate.

Sir William Fergusson has added another laurel to his reputation, in proposing and practicing a new operation for the cure of cleft palate. After speaking of the methods formerly employed by others and himself with varied degrees of success, he adds, "Experience led me to give up the plan of Mason Warren, of trying to close the gap in both soft and hard parts, at the same time, even in instances where the defect in bone was but slight. * * * An idea came into my mind years ago which, however, I thought so wild that I would not dare to bring it into practice.

"Repeated failures, however, by the usual methods, brought it more forcibly into my thoughts, and at last I resolved to put it into execution. My project was, that instead of making the separation between the soft tissues and bony palate, for a quarter of an inch or so, I should divide the palate, soft tissue and bone, about a quarter of an inch from the margin of the gap on each side, cutting the soft tissue in the roof of the mouth with a scalpel, and the bone, with mucous membrane above in nostrils, with a chisel, by means of which I could push the margins towards the mesial line; so that having been previously made raw by removing the mucous membrane, they might be brought into apposition and held so by stitches."

Five cases of this second operation were tried with entire satisfaction; and in one case, in which the attempt to close both the soft and hard palate, the closure was entire in the soft palate, and in considerable part in the hard palate.

"I have no doubt whatever that, in instances where there is only a slight fissure in the hard palate, the surgeon, by use of the chisel, will thus be enabled to close it, and that in the soft with a certainty hitherto very questionable."

Six illustrations accompany the article.—*British Med. Journal.*

On the Treatment of Vascular Growths of the Urethra without Operation. By Arthur W. Edis, M. D., Asst. Physician to the Hospital for Women, Soho Square. (Read before the Obst. Society.)

After speaking of the inconveniences of, and of the frequent opposition to, the operation in these cases, the writer remarks, "The application of the pernitrate of mercury is attended by much pain and inconvenience, and cannot always be resorted

to. Nitrate of silver, in my experience, is not sufficiently potent; it produces too much irritation, and does not sufficiently destroy the vascular growth—in many cases seeming to increase rather than diminish it. The actual cautery cannot well be applied unless the patient be at home; and the various other agents, such as potassa fusa, nitric acid, etc., etc., are too painful to be of general application.

"To obviate this difficulty I was induced to try the effect of *chromic acid*, and was surprised to find how little inconvenience it occasioned, and at the same time how efficacious it was in destroying the growth. I have in numerous instances applied a saturated solution, and with the most marked benefit. My usual plan is to roll a little cotton-wool round the end of a small piece of wood (an ordinary match will do); to soak it for a quarter of an inch in the acid solution; and then to carefully yet firmly press it upon the vascular growth until the surface becomes distinctly shrivelled; the surrounding parts being guarded by cotton-wool soaked in solution of carbonate of soda, which is also applied to the growth subsequently, to neutralize any excess of the acid. Slight burning pain is produced, but seldom sufficient to need any employment of morphia, either hypodermically or as a local application. * * * In about a week's time a second application should be made; and, depending upon the size of the growth, two or more subsequent applications, at a week's interval, will generally be sufficient to complete the cure, which, as far as I have been able to observe hitherto, is permanent. * * *Carbolic acid* in the solid form, or as a saturated solution, also serves to mummify these growths, and cause far less inconvenience than many of the numerous agents recommended. My experience with this is not yet sufficiently great to enable me to speak positively, but I believe it will be found to be a very useful addition to our list of remedies in these cases. I append a few cases where the chromic acid had been employed."

Five cases were treated and reported in detail.

Many other cases were treated in the same manner, and it is supposed relieved, as they ceased to report.—*Ibid.*

Cincho-Quinine.

The following communication from J. F. Miller, M. D., of

Goldsboro', N. C., appears in the *Philadelphia Medical and Surgical Reporter*, of February 14th, 1874:—

The comparatively new article of medicine, *Cincho-Quinine*, having become a subject of much comment by quite a number of medical gentlemen, I have been induced to try it in my own practice. I have been using it freely for about twelve months, and have fairly tested its virtues, both as a tonic and antiperiodic, and I can safely recommend it to my professional brethren as a most valuable medicine. I have observed but one unpleasant effect on children, *i. e.*, an efflorescence of the skin after giving the medicine for several days in full doses; but this effect is comparatively rare and really of little importance. I do not regard the cincho altogether equal to the sulphate of quinia as an antiperiodic, of the same quantity by weight, but probably about one-eighth weaker; that is to say, it will require one-eighth more by weight of the cincho to make it equal to the sulphate of quinia as an antiperiodic. But the sulphate costs a a little more than one-third more than the cincho, which, as a pecuniary investment, leaves a balance in favor of the latter article. The cincho-quinine certainly agrees with the stomach better than the sulphate, and produces little or no nervous derangement, and is consequently preferable to the sulphate in many cases. Notwithstanding the eruption that now and then appears from its exhibition to children, I regard the cincho-quinine the very thing for this class of patients, for by making an elixir of the medicine, they take it very readily, which is a most important consideration.

The following are only a few of the many cases of children treated with the cincho-quinine, and I also give the formula used by myself in preparing the elixir:—

Ella, child of W. F. F., æt. eighteen months, has had intermittent fever, quotidian form, for several days. Chill believed to appear from eight to ten o'clock A. M.

℞ Cincho-quinine, - - - - - grs. vij.
Aro. sulph. acid, - - - - gtt. v.
Syr. zingiberis,
Aquæ rosæ, - - - - - - āā ℥ss.

Mix and dissolve. Sig. Teaspoonful at eight and eleven P. M., and two and five A. M.

No perceptible chill, but a slight fever came on about one o'clock P. M. Repeat the prescription at five, seven, nine, and eleven A. M., following day. Result, no chill or fever, and patient recovered without further difficulty.

Tommy, son of T. B. H., æt. five years, has had two chills, tertian form; the last chill being very severe and fever lasting unusually long; bowels costive. Time of chill seven A. M.

℞ Hydr. chlo. mitis,
Leptandrin, - - - - - āā gr. ij. M.

Sig. Take at bedtime.

Medicine acted well early next morning, and at eight and eleven P. M., and two and five A. M., two teaspoonfuls of the following mixture were given:—

℞ Cincho-quinine, - - - - - grs. xij.
Aro. sulph. acid, - - - - - gtt. vij.
Syr. zingiberis,
Aquæ rosæ, - - - - - - āā ℥j.

Mix and dissolve. Result, no return of chill or fever, and patient rapidly recovered. The remainder of the prescription was given to him in teaspoonful doses *ter in die*.

The last case that I shall notice (though many others might be given) is that of my own child, Charlie, æt. seven and a half years. To him I gave the same prescription given to the child of T. B. H., with a like result. A few drops of tinct. cinnamon will add to the agreeableness of the elixir of cincho-quinine.

The Action of Alcohol.

The "place and power" of alcohol is not settled. Dr. Parks, of London, has recently communicated some very interesting experiments to the Royal Society. The object of the experiments was "to ascertain the influence of ordinary alcohol on the temperature, pulse and respirations of a healthy man." "The patient finished breakfast every day at 7 A. M., and then lay in bed till 2 P. M.; when he arose and took exercise. At 9 P. M., he went to bed. The brandy was given at 11 A. M., four hours after breakfast. The first day, he took one fluid ounce of undiluted brandy (equal to half an ounce of alcohol); on the second day, two ounces; on the third day, four ounces; on the fourth day, six ounces; and on the fifth day, also six ounces.

The results of these experiments, and of others previously communicated to the Royal Society, showed that the temperature of the axilla and rectum was hardly altered by the alcohol. It certainly was never increased; and though it seemed to be slightly lowered, this was not quite certain; and if any lowering did occur, it did not exceed one thirty-five-hundredths of a degree Fahr., and may not have been more than one seven-hundreths of a degree Fahr. * * * When alcohol was given during fasting and rest, it lessened the temperature much more distinctly, though, still only slightly, the diminution never exceeding half a degree Fahrenheit. It was greatest one or two hours after the dose had been taken, and evidently passing off after three hours. If given with food and either usual or increased exercise, alcohol produced no effect whatever on the temperature, even when the quantity amounted to so much as from four to eight ounces of absolute alcohol, equal to sixteen ounces of brandy in twenty-four hours. In no case did it raise the temperature." When the man was at rest the pulse was quickened from five to ten beats per minute after the alcohol had been swallowed, and remained quick for some time. When in exercise the increase in rapidity was still greater. After the effect of the alcohol had passed off the pulse-rate fell even below the normal, so that the number of beats in twenty-four hours was not increased unless the amount of alcohol had been large and repeated. The pulse became fuller and softer to the touch; and it was evident, both from sphygmographic tracings and from the redness of the skin, that the radial artery and the cutaneous capillaries were relaxed and dilated.

The respirations were not increased in numbers, indeed they were lessened and became deeper, but were not much affected.

Alcohol, then according to Dr. Park's exact experiments, has almost no action on respiration, and very little on tempera ture, which it slightly diminishes, but never increases. Its effects on the heart may be said to be stimulating but not strengthening, and may reasonably be compared to that of a spur applied to a horse, quickening its movements for a time, but not actually increasing its strength as a feed of corn would do.

Physicians then should consider most carefully to what extent stimulants are to be administered in disease. * * And it

is possible, that as the horse may be worried to death, so may a heart, which might have kept up the circulation feebly and languidly till the crisis of the disease was past, may have become exhausted and ceased to beat, because it had been kept working beyond its strength for days, or hours under the stimulus of alcohol. Whenever the circulation is becoming so weak as to be insufficient to sustain life, alcohol must at once be employed, and its beneficial powers will immediately become manifest. * * * The condition of the cutaneous vessels forms one of the most important parts of the great regulating mechanism by which the balance between loss and gain of heat is preserved in the organism. Whenever the temperature rises, these dilate, as we see in the flush of fever or after active exercise, and by exposing the warm blood, over a large surface to the influence of the air with only a thin layer of tissue between, quickly cool it down, in somewhat the same way as we cool tea quickly by pouring it into a saucer. Cold has the opposite effect exactly; it causes the cutaneous vessels to contract, and thus drives the blood from the surface into the interior of the body, and prevents its temperature from becoming lower. The skin may thus become as cold as ice, but the vital organs are preserved from chill.

Dr. Parks has observed, alcohol dilates the arteries and cappillaries, allowing the blood to stream freely through the cutaneous vessels, and imparting a ruddy tint to the surface. The consequence of this is, that a glass of spirits on a cold day allows the warm blood from the interior of the body to circulate over the surface, and imparts a temporary glow to the numbed extremities.—*British Med. Journal.*

Editorial.

NEW PUBLICATIONS.

The Missouri Clinical Record, is the title of a new medical journal for St. Louis.

As we failed to receive the first number of the above journal, before we went to press, the attention of our readers was not called to it. Also the prospectus we did not receive, or it

would have appeared in our columns at the proper time. We extend to our neighbor a hearty welcome, also our "sympathy," as the *Clinic* has it; for those who glean in the field of journalism sometimes encounter thorns. The *Record* is issued monthly. Terms, $3 a year. W. A. Hardaway, M. D., editor, assisted by A. B. Shaw, M. D., and C. A. Todd, M. D., all young gentlemen of promise connected with the Missouri Medical College.

ARCHIVES OF ELECTROLOGY AND NEUROLOGY. A Journal of Electro-Therapeutics and Nervous Diseases. Edited by George M. Beard, A. M., M. D.

The first number, quarterly, is now before us, consisting of 143 pages 8vo, on tinted paper, clear type. Various applications of electrodes, illustrated.

The table of contents enumerates some fifteen original articles by well known authors. The fountains of knowledge in this department seem to have been tapped, in a manner that gives promise of an inexhaustible supply. The next issue will take place in the early autumn. Subscription, $2.50 a year. Single copies $1.50. New York: T. L. Clacher, No. 107 East Twenty-eigth St.

Virginia Medical Monthly.

WE have the first (April) number of the *Virginia Medical Monthly*, a venture which promises well, being now the only medical periodical published in the "Old Dominion" it certainly should receive the requisite *material* aid. Doubtless sufficient talent will be displayed to keep it in the front rank with those of its class. Editor and proprietor, Landon B. Edwards, M. D. Subscription $2.00 per annum, in advance.

Encyclopædia of Medicine—Translated from the German.

We have notice from the enterprising publishing house of William Wood & Co., No. 27 Great Jones Street, New York, of the speedy publication by them, in English, of the above work, edited by a number of the most eminent clinical instructors of Germany. "The translating will be done by professional gentlemen, many of them former students of the writers of the different treatises, under the supervision of a responsible chief. The work will embrace the entire range of *Special Pathology* and *Therapeutics* and will be completed in fifteen volumes, large octavo, from 500 to 700 pages each. This publication is by *subscription*. Three or four volumes a year at regular intervals, thus distributing the cost over four years. *The first volume may be expected in August next.* Terms:—

15 volumes octavo,	Muslin binding,	per vol.	$5.00
15 " "	Leather "	" "	6.00
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Payable on the delivery of each volume.

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

MAY, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	58.5	83.0	18	49.5	70.0
2	62.5	82.0	19	51.0	80.0
3	59.0	77.5	20	59.0	79.5
4	44.5	59.0	21	55.0	74.0
5	45.0	67.0	22	53.0	78.0
6	48.5	74.5	23	62.0	92.0
7	52.5	80.0	24	69.0	98.0
8	58.5	88 0	25	71.5	88.5
9	59.5	87.0	26	63.0	90.0
10	63.5	86.5	27	70.0	96.5
11	60.0	76.0	28	74.0	95.0
12	63.5	82.0	29	69.5	85.0
13	61 0	86.5	30	70.0	92.0
14	62.0	84.0		72.0	95.0
15	65.0	79.0			
16	52.5	70.0	Means	60.0	82.2
17	56.0	71.5	Monthly Mean 71.1		

Quantity of rain: 3.02 inches.

Mortality Report.—City of St. Louis.

FROM MAY 31, 1874, TO JUNE 27, 1874, INCLUS.

Alcoholism. 2	Debility. 9	Heart, Fatty. 2	Small Pox 30
Abscess 1	Dentition. 2	" Valv. Dis. . . . 1	Sunstroke 1
Anemia. 1	Diarrhœa 13	Hemiplegia 1	Septicæmia. 1
Asthenia 1	Dropsy 10	Hepatitis 2	Suicide 5
Apoplexy. 3	Drowning 4	Hydrocephalus 5	Typhomania. 1
Atrophia 2	Eclampsia. 2	Hemorrhage. 4	Tetanus 1
Abdomen, conges of 3	Epilepsy. 2	Inflammation. 1	Trismus. 3
Brain, Congestion of 15	Endocarditis. 2	Lung, Cong. of 3	Unknown. 1
" Concussion of 1	Enteritis. 5	Laryngitis 2	Uremia 1
Bronchitis 5	Erysipelas 2	Marasmus 25	Varioloid 1
Cancer 5	Fever, Congestive. . . 4	Meningitis 10	Whooping Cough. 11
Cholera Infantum. . . 11	" Intermittent. . 3	Meningitis Cer. Sp. . 10	
Cerebritis. 3	" Scarlet. 4	Melancholia 1	Total. 372
Consumption 39	" Remittent. . . . 2	Old Age. 2	Stillborn. 31
Convulsions. 46	Gastritis. 5	Oedema Pulm 1	Under 5 years 282
Cellulitis 2	Gastro Enteritis. . . . 4	Premature Birth. . . . 7	
Delirium Tremens. . 4	Gangrene 1	Pneumonia 17	
Diptheria. 4	Heart, Dis. not Sp. 1	Peritonitis 6	

THE SAINT LOUIS

Medical and Surgical Journal.

AUGUST, 1874.

Original Communications.

CRITICISM UPON REMARKS MADE BEFORE THE ST. LOUIS MEDICAL SOCIETY BY DR. HODGEN.

By R. W. Erwin, M. D., Bay City, Mich.

In the May number of the St. Louis Medical and Surgical Journal, page 257, Dr. Hodgen is represented as saying: "The oxygen when it reaches the blood combines with carbon and forms carbonic acid. The nitrogen serves to dilute the oxygen and also furnishes a chemical agent with which the carbonic acid (which renders the blood venous) may diffuse and thus aid it in being carried out of the lungs. If a patient breathe *pure oxygen*, or nitrous oxide, the *blood becomes venous rapidly*,* first, because more than the usual amount of oxygen reaches the blood to *combine* with *carbon* and form carbonic acid, and secondly, because the proper facilities are not afforded for carrying off the carbonic acid. The very *worst treatment* to which a patient could be subjected—if poisoned by carbonic

*Italics are mine throughout.

acid gas—would be to permit him to *breathe oxygen* in larger proportions than it is contained in the air. If he could be *forced to breathe pure hydrogen*, the blood would be sooner relieved of its load of poison in accordance with Graham's law of diffusion of gases." "Hartshorn would promote the formation of carbonic acid in the blood. The presence of spts. ammonia would render the blood abnormally alkaline." "Now if you make the blood abnormally alkaline by giving spts. ammonia, or carbonate of ammonia, etc., you increase the amount of carbonic acid in the blood instead of getting rid of it." Hence he objects to the use of carbonate of ammonia in the last hours of a feeble patient,—"sure to see crape on the door next day."

I have quoted at considerable length, but the statements are so untenable that no excuse is necessary. The points the Doctor makes are these:

1. Carbonic acid is formed in the lungs.
2. It is formed by oxidation of carbon.
3. Nitrogen is very important in aiding the lungs to get rid of the carbonic acid.
4. Inhalation of oxygen renders blood rapidly venous. Hence concludes practically, that a person poisoned by carbonic acid should under no circumstances have oxygen.
5. Hydrogen gas is good in such a case of poisoning on account of the tendency to diffusion of the two gases.
6. Carbonate of ammonia, or spts. of ammonia, should not be given a feeble patient since they increase the carbonic acid in the blood.

We will consider these points with their inferences in the order of their arrangement. It is a mistake to regard medication antidotal. There are a few things

whose reactions in the stomach can be predicated with some degree of certainty, but we all know that the physical economy is everywhere stored with forces to modify, change, hasten or arrest the chemical action of a drug. In this paper it is not our purpose to take cover under this fact. The truth or falsity of the teaching is to be verified by physiological experiment and clinical experience. The theory of the production of carbonic acid by oxidation of carbon in the lungs is not a new one. Lavoisier first advanced it. Among the earliest things overthrown in analyses and other investigations of the properties of blood was this theory—(see Dalton's Physiology, Fourth Edition, page 228). "Carbonic acid was found in the blood before it reached the lungs in the veins, and the oxygen absorbed during respiration passed off in a free state with the arterial blood." The real process as it takes place in the lungs is for the most part as follows: The blood comes to the lungs already charged with carbonic acid. In passing through the pulmonary capillaries it is exposed to the air in the air vesicles—an interchange of gases follows, according to the law of diffusion of gases. There is more carbonic acid in the blood than in the pulmonary cells, and part escapes to them. The oxygen, being greater in the cells than in the blood, under the operation of the same law, passes through to the blood and is caught up by the globules. Magendie and Magus found venous and arterial blood in the ratio per volume of oxygen to carbonic acid in arteries to be 10 to 27; in the venous blood 10 to 40. The existence of carbonic acid in the blood before it reaches the lungs is not proof that it does not form in the lungs also. It is possible for it to form in these organs. The lung

tissue contains an acid called from its location "pneumic acid." A weak carbonate or bicarbonate entering the lungs in the blood would be liable to suffer decomposition with the production of carbonic acid. But we maintain that a sufficient amount of an alkaline carbonate can not under the recognized use of these drugs be absorbed in the blood to produce serious trouble. A very small quantity of carbonic acid is formed in the bloodvessels themselves from the nutritive changes in the corpuscles. The great source however is the tissues. It is shown by the experiments of Spallanzani, and others, that "every organized tissue or substance, when in the recent state, has the power of absorbing oxygen and exhaling carbonic acid." This is not the result of oxidation. "Marchand found that a frog could live from one-half to one hour in pure hydrogen gas and that during this time would exhale even more carbonic acid than in the air, owing probably to the superior displacing power." It being shown that carbonic acid is not the result of oxidation of carbon in the lungs, but that it originates in the meatmorphosis of cell-structure in its nutrition, it follows that the fear of loading the blood with carbonic acid by the breathing of pure oxygen is groundless. This is fully attested by experiment and clinical experience. Take blood from a vein and put it in pure oxygen, and it rapidly loses its purple color from escape of carbonic acid, and becomes bright red from absorption of oxygen. This is proof itself of the appropriation of oxygen and not of oxidation of carbon. The same thing will follow exposure of blood to the air, only more slowly—a not very strong argument in favor of nitrogen as an aid in exhalation of carbonic acid gas; neither is there danger

in inhalation of pure oxygen, of the blood becoming surcharged with oxygen. Respiration is the result of reflex irritation in the medulla oblongata from the presence of carbonic acid in the tissues, or the want of oxygen in the building up process, perhaps of both, and the greater the accumulation of the carbonic acid and the want of oxygen, the more rapid will be the respirations, and *vice versa.* If the blood were wholy oxygenated in the veins there would be no respiration. This is shown by opening the trachea of a dog under the influence of chloroform, and practicing artificial respiration. As long as the blood is aerated no effort will be made to breathe. Stop long enough to allow the carbonic acid to accumulate, and the animal will immediately gasp and make efforts to respire. Resume its artificial respiration again, and he ceases. Now tie the pulmonary arteries and continue the pumping of air, and though the lungs may be distended with air, convulsive efforts to breathe begin as soon as the venous blood in the system gets dark. The amount of oxygen absorbed is elected by the wants of the system. Arterialize the blood completely and breathing will stop till the carbonic acid is produced, and the frequency and length of the act will be governed by the amount of oxygen needed. More than the needful amount cannot be forced into the blood unless by a bellows to continue respiration against the want or call of the system. Then such a thing is doubtful. Having shown that the respiratory act is due to the want of oxygen in tissues, etc.; that the blood and nervous system elect the amount of oxygen absorbed; that this law prevents a surcharge; that carbonic acid is not produced by oxidation in the lungs; that pure oxygen

changes the blood from venous to arterial more rapidly than the atmosphere, we may expect to find that oxygen will prove remedial in cases of deoxygenation of the blood, whether from poisoning from carbonic acid gas, heart disease, or lung affections. This is strongly supported by the following cases—(See *Boston Medical and Surgical Journal*, August 29, 1872.)

Dr. J. G. Blake, of Boston, reports three cases of suffocation from coal gas brought to the city hospital, in which the inhalation of oxygen was followed by almost immediate relief. At first whenever the gas was discontinued relapse would ensue. Soon the improvement became permanent and the patients were discharged well.

In the *Medical Record*, N. Y., Vol. V., page 501 *et seq.*, several cases may be found reported of its successful use. Dr. Jerome C. Smith reports a case of a child suffering with measles, that was taken with congestion of lungs. Oxygen gas was used and the child recovered, though death seemed certain. The same gives a "case suffering from pelvic abcess and extreme nervous prostration after the operation of ovariotomy. Hydrate of chloral was given. After taking 200 grains decided symptoms of poisoning came on. Face was livid—of perfect mahogany—lividity giving place to spots of whitening about the nose; condition most alarming. Drs. Purdy and Andrew Smith were called,—oxygen gas administered. The immediate improvement was great. But when the gas was let up for a short time the grave symptoms returned. It was a matter of demonstration to all of us that the oxygen was the only thing we could rely upon to keep the patient alive. 'It served to bridge over the chasm of imminent danger." Other instances

are given. I will only recite one more. It is recorded by Dr. Peaslee, of N. Y., on page 502, same number. "An aged lady who had been suffering from disease of the heart for two years had a sudden attack of dispnœa, and sent for me in the night. I sent Dr. Janorin in my place and he found the utmost distress with œdema of both lungs. It occurred to him to use this remedy, and he at once obtained a cylinder. About five gallons were drawn off at once and taken in the course of five or ten minutes, as the case might be. Very soon the dyspnœa was relieved, the lividity of the lips disappeared, and the patient was comparatively comfortable. But there was no arrest of pulmonary œdema. The fluid kept rising higher and higher, the patient sitting erect. This was at 10 A. M. The oxygen would relieve her most urgent symptoms and then she would relapse. The whole day was occupied in keeping her alive, as in my opinion it unquestionably did, till the medicine that had been given for the œdema should have time to operate, which it did about dusk, with marked benefit. I do not believe she could have lived two hours without the oxygen,—its effect was so apparent in changing the color, diminishing the frequency of pulse and increasing its force." These instances are related by competent observers and are very strong proofs in favor of the efficacy of oxygen in deficient oxygenation of blood Were it to have the effect the Doctor attributes to it, no such testimony could be adduced, since chemical laws are unvarying and the conditions must ever give rise to the same result. If it charges the blood of one with carbonic acid, it will that of every other. The sphygmograph confirms the good effects of oxygen upon the pulse. For full report

upon this subject, with the aid of this instrument, see N. Y. *Medical Record*, Vol. V., page 481, by Prof. A. H. Smith, M. D.

As regards the "forced use" of hydrogen gas in poisoning by carbonic acid little need be said after stating that hydrogen gas is not a supporter of life. It may aid in the exhalation of the poisonous gas, but it is no less important for the patient that oxygen be supplied simultaneously. Treatment by hydrogen would most certainly "put crape on the door" in quick time. I presume the Doctor did not intend to convey the impression that such treatment would be proper, though the report represents him as saying so. The fact that more oxygen enters the system at each inspiration than is excreted in the respired air, would settle the question that oxygen is needed for other purposes than carbonic acid and that it cannot meet the want.

Owing to the length of this article the last subject must be treated of very briefly. The therapeutic effect of carbonate of ammonia and spts. ammonia in persons of feeble health is "an increase of the heart's action and arteries without unduly exciting the brain," and in the "last stages of phthisis it facilitates the excretion of sputa by increasing muscular power."—(U. S. Dispensatory.) If the theory of the Doctor be correct, that administered to a feeble patient it renders the blood abnormally alkaline, and as a consequence poisons the blood with carbonic acid, then the above quotation from the U. S. Dispensatory is bad advice. Let us examine the matter chemically. Suppose a patient be given five grains carb. ammonia every three hours well diluted in water. This would allow an absorption of 1½ grs.

every hour, or $\frac{1}{60}$ gr. every minute, equal to $\frac{1}{720}$ gr. during each respiratory act. This is a fair average in a a very delicate patient. Suppose that none of this passed off by the skin, or to be consumed in the body, but that it came in contact with the pneumic acid in the lungs and there decomposed; how much carbonic acid would be generated from $\frac{1}{720}$ gr. carbonate of ammonia? Just about $\frac{1}{4}$ of $\frac{1}{720}$ by weight, or $\frac{1}{8}$ by volume. It would add a tax of about $\frac{1}{5760}$ grain of carbonic acid to each expiration. What does such a fraction amount to where $\frac{1}{8}$ grain of carbonic acid passes off at each normal expiration. It would not make a greater increase than a dinner of meat after a breakfast of starchy food. Suppose instead of the carbonate, the spts. of ammonia were employed, and the dose were ten drops, equal to one grain of ammonia. If this were absorbed as spts. ammonia, and in the blood were converted into the carbonate, there would be, in case of its decomposition in the lungs, liberated the same amount of carbonic acid that was taken from solution in the blood to form the carbonate—no more, nor less; hence no embarrassment from such a source. This analysis would indicate that a much larger quantity than I have considered, or more rapid absorption could take place without deleterious results.

According to the Doctor's theory it would be bad practice to allow one in a state of syncope to inhale hartshorn—a conclusion not warranted by experience. I have used carbonate of ammonia in very severe attacks of pneumonia when respiration was very much compromised from the exudation, with excellent results.

BROMIDE OF POTASSIUM AND CHLORAL IN THE PROPHYLAXIS OF CONVULSION.

By C. H. Hughes, M. D.

Remedies so potent as the bromide of potassium and chloral hydrate in controlling epileptic and asthmatic spasm, the paroxysms of maniacal excitement and hysteria, ought not to be ignored in the treatment of the convulsive affections of childhood. I have employed the bromide of potassium in the treatment of whooping cough and chorea, with satisfaction, but have only used it as a prophylactic in infantile convulsions.

I detail, briefly, an illustrative case which the practicing physician can duplicate in most of its features from his own experience.

Jan. 26th.—Edith W., aged nine months, a neighbor's daughter, began to throw her right hand up to the side of her head, became unusually restless and cried a great deal as if in pain. The mother suspected ear ache and procured an anodyne application. About midnight I saw the child in a convulsion, the exciting cause of which was one day's constipation. The warm bath, soap suppository in rectum, an emetic, cold to the head and irritation of spine, constituted the treatment during the paroxysm.

Remained with patient until morning when I gave two grs. hyd. chl. mit. with some prepared chalk and sugar, and repeated the dose in three hours.

Spent most of the 27th, 28th and 29th with the little patient, giving her four grain doses ter die of bromide of potassium and three grains of chloral at night, on ac-

count of the persistent tendency to recurrence of the convulsion and disturbed sleep.

A small dose of castor oil was given on the 29th and 30th, and a little spt. æth. nit. on the 29th. Saw her on the 31st and on Feb. 2d.

This constituted essentially the whole treatment except sponging the surface, regulation of temperature and some minor directions from time to time suggested.

Could find no fault with the mother's milk, nor had the child eaten anything to cause intestinal irritation. The surroundings of the child were all favorable to health. The mother's mental state was cheerful. The child was not teething. To the slight constipation, therefore, may safely be attributed the excitation of the convulsion. This is the only fact to be borne in mind thus far.

On the 12th of February, I saw this same patient again in a violent paroxysm, the exciting cause at this time being a slightly swollen gum and the cutting of the first upper incisor. The gum was lanced deeply down to the tooth and had to be cut repeatedly before the tooth came through.

The same threatening symptoms as after the first paroxysm were repeated and a similar course pursued as during and after the first convulsion, my attention being quite constant during the 12th, 13th, 14th and 15th, visiting the patient once a day on the 16th, 17th and 18th. The tooth having made its appearance and no other source of irritation presenting, the patient was again considered safe, and treatment discontinued.

On the 26th, a slight looseness of bowels—three or four discharges. On the 27th, another convulsion, longer and more violent than the preceding ones, came

on. The same violent threatenings of recurrence demanded my frequent and somewhat constant attention on February 28th, and March 1st and 2nd. No signs of teething at the accession or subsidence of the convulsion was manifest. The gums were neither red nor swollen after the cessations of the startings in sleep, the disappearance of the convulsive twitchings and all nervous sequelæ.

The antecedent history of this little patient is briefly this: Her father has always been a nervous man and his nervous system has been over wrought by large responsibility, close attention and almost constant devotion to business. He is one of those earnest kind of men who feel the full weight of the responsibility he assumed, and with whom fealty to duty is paramount to everything else.

The child inherits from the father a tendency to nervous irritability which, however, had been somewhat atoned for by the less nervous mother. At six weeks of age, this apparently healthy but frail organism received a violent shock from which perfect recovery never followed, in an attack of phlegmonous erysipelas following vaccination and lasting four or five weeks. The infant's sufferings were excruciating and constant. The medical attendants supposed the child could not live.

To the abnormally impressible nervous organism of this child may be attributed the facility with which convulsions were engendered.

The following prophylactic course was adopted:

℞ Potass. Bromid. gr. iv.
Aq. Menth. pip. m. xx.
Syr. Simplicis, m. xl.
M. Sig. Give three times a day.

℞ Quin. Sulph. gr. ss.
Syr. Simplicis, m. l.
Tr. Kins. m. x.
M. Sig. One dose in forenoon and one dose in afternoon.

℞ Chl. Hydrat, gr. iij.
Syr. Simplicis, ʒi.
M. Sig. Once or twice during night in water, when sleepless or fretful.

A drachm of ol. ricini was directed pro re nata.

On the 5th of March this child had a piece of coal lodged in its throat which was removed shortly after it got there. On the 18th of same month it dislocated its wrist, on the 5th of March, also, it had some diarrhœa, but up to the present writing—June 10th—no convulsive symptoms have reappeared notwithstanding the patient now has eight teeth.

In this case the practical physician will observe that the excentric cause of the convulsions, was scarcely sufficient to excite the paroxysms in children of ordinarly good organisms, even at the usually very impressible age of this patient, while the amount of probable irritation which the patient withstood without the excitation of a convulsion—the cutting of seven teeth during March, April and May—was enough to morbidly disturb the nervous organization of most infants.

I am confident that the brain is rendered less impressible by this treatment. I have tried it in many forms of nervous disturbance in children, but in none derived more signal satisfaction than in this case.

Bromide of potassium and chloral judiciously used are undoubtedly our best remedies for tranquilizing the nervous system and maintaining the cerebral circulation in a condition favorable to natural and recuperative rest

and sleep. Through the diminution of cerebral disintegration which they induce, they fortify the brain against irritation transmitted to it from without and lessen the susceptibility to spasmodic and convulsive causes:—the chloral for prompt action and the bromide for prolonged effect.

1218 St. Ange Avenue.

BLOOD POISONING IN PUERPERAL PERITONITIS.—A CASE IN EVIDENCE.

By W. W. Watkins, M. D.

Nancy R., aged 45 years, married, in good health, robust constitution, on March 28th was attending, as nurse, a patient dying of puerperal peritonitis. The nurse had her right arm under the head of the dying woman rather forcibly holding her quiet, as she was very delirious, when she received a bite from the dying woman upon the anterior surface of the fore arm a little above the wrist. But little attention was paid to the injury at first, as it was very superficial—merely penetrating the skin. I was called to see her on the morning of the 30th, and found her suffering great pain along the whole course of the arm, lymphangitis existing with enlargement of axillary glands, and considerable swelling of fore arm, anxious expression of countenance, great constitutional disturbance, tongue coated, constipation,

dry harsh skin, rapid pulse, increased temperature. For which we prescribed

℞ Hydrg. Chlo. Mitis, gr. viii.
Pulv. Rhei, gr. vi.
Pulv. Ipecac., gr. i.

M. Sig. At once.

Also, ℞ Tr. Aconite Rad. ʒss.
Spts. Nitri dulci, ℥ss.
Aq. Dest. ℥iss.

M. Sig. Teaspoonful every third hour.

Poultices of slippery elm to wound.

March 31st, 8 A. M.—Found patient somewhat improved. Fever abated, bowels had acted freely, swelling of arm disappearing, everything apparently for the better.* Ordered quinine sulph. gr. iv. every three hours until 3 P. M. with generous diet, wine and continued the poultice.

April 1st, 4 P. M.—Was informed that patient was taken worse at 12 M.; went immediately to see her, and found her with increased fever of a low typhoid character, pulse 135, temperature 103°, skin dry, tongue dry, with a brown coat; muttering delirium at times, but when aroused quite rational; the fore arm presenting a remarkable change since last visit, being now swollen to twice the original size, pitting on pressure, with considerable pain; great restlessness, and anxiety in regard to her condition when aroused to complete consciousness. Ordered soft large poultices to the wrist which appeared to give some relief. A thin watery colorless discharge escaped from the wound.

[*Departing from the rule to "let well enough alone."]

Prescribed the following:

℞ Chloral Hyd.
Brom. Potass. āā gr. xv.
S. Every hour until delirium subsides, or sleep is induced.

9 P. M.—Found that the chloral mixture *increased* the delirium and excited vomiting, bringing no rest; ordered its discontinuance, substituting pill opii gr. iss, every two hours, until rest was procured.

April 2nd, 7 A. M.—Has had five hours good sleep, taking only two pills, but there is great prostration. Pulse 130 and weak, temperature 102°, tongue heavily coated with a brown, dry fur along the centre, edges red. Anorexia, no motion from the bowels the past forty-eight hours, complains of no pain, delirious, constant picking at the bed clothes. Arm swollen to shoulder, no pain on pressure, upon inquiry says she "feels perfectly easy," ordered quinine until midday, with alcoholic stimulants in form of egg nog and milk punch every two or three hours, generous diet of milk, rice, etc., also local application of tr. iodine from the elbow to shoulder every five hours. Also a mild aperient.

4 P. M.—No change unless it be that patient appears somewhat weaker, no motion from bowels as yet.

℞ Ol. Ricini, ℥ss.
S. At once.

℞ Pill Opii. gr. iss.
Sig. One every two hours through the night until sleep is procured.

April 3rd, 8 A. M.—Saw patient in consultation with my friend, Dr. Nifong, of Fredericktown. We found her in a low semi-comatose condition. Pulse weak and

hurried 140, temperature 106°; no suffering apparent except great tenderness over the right iliac region, has had one slight motion from the bowels, very offensive; no desire for food, cold perspiration of an unpleasant odor; can be aroused by speaking very sharply to her; *fore arm* in the same condition as at last visit, the swelling in the *arm* diminished greatly, can discern no fluctuation in vicinity of wound. Continued stimulants.

3 P. M.—Death. Autopsy refused.

This case is presented as a "passing straw" indicating the correctness of the current professional opinion as to the pathology of this fearful malady.

Mine La Motte, Mo.

CO-DEVELOPMENT OF INTRA AND EXTRA UTERINE PREGNANCY.

By JOHN T. HODGEN, M. D.

M. S. C., aged 27, a healthy female, menstruated regularly from the first establishment of the flow, until November, 1872.

Suffered from nausea and general discomfort during December, 1872. Early in January, 1873, had pain in lower part of abdomen, to left of median line. On January 8, 1873, a careful examination revealed the breasts enlarged, firm and tender, with the papillæ about the nipples prominent. The uterus enlarged, and to its left, within the pelvis, a sensitive tumor, larger than the uterus at that time. The pain, with nausea and vomit-

ing, continued through January and February; the uterus and tumor continuing to enlarge in about equal ratio. She grew pale, thin and weak, and was confined to her bed. Anodynes were constantly administered to relieve pain. At the end of February, the pain, nausea and vomiting ceased, and general health improved.

Both the uterus and tumor had now arisen out of the pelvis, and the outline of the right enlargement could be distinctly traced as continuous with the neck of the uterus, while the tumor to the left, though closely pressed against the other, was distinct.

At the end of February, the tumor to left ceased to enlarge, and gradually diminished in size, but remained tender to pressure, and in a month or two presented some irregularities in form, that had not before been observed.

The tumor diminished in size until the 17th of August, 1873, when Mrs. C. was delivered of a healthy, living child, after a labor of eight hours. The placenta was adherent and required the introduction of the hand for its delivery. The tumor to left could now be distinctly made out, and was not more than one-fourth the size it was at the fifth month.

Saw Mrs. C. February 10, 1874. She says the tumor is now not larger than a large lemon, and sometimes cannot be distinctly found. General health has been good since confinement; suffers not at all at present, though for several months after confinement the tumor was sensitive.

April 27, 1874, saw and examined Mrs. C. Says she suffers pain and tenderness in the tumor, after more than ordinary exercise, and pain extends down inner side of thigh. A bimanual examination determines the

tumor to be about the size of a lemon, somewhat irregular, a little sensitive to touch, moves freely with the uterus, also moves without the uterus, but not so freely —tumor is higher in the pelvis than the uterus and pushes that organ to the right. Mrs. C. menstruates regularly, though she is nursing.

This case was probably one of tubal pregnancy, in which the sack burst about the fifth month, without much hæmorrhage—the fœtus died, and a limited peritonitis occurred. It is probable that the left fallopian tube has been obliterated, and of course the ova from the left ovarium cannot now reach the uterus.

Correspondence.

SCHEFFER'S PEPSIN.

Editors JOURNAL:

The March number of the JOURNAL, quoting from the *Boston Medical and Surgical Journal*, gives the results of certain experiments made by Edward H. Hoskins, M. D., in regard to the value of the different preparations of pepsin found in the shops. From the article in question it would seem that as a rule these preparations are worthless, and I am of the opinion that the majority of practitioners who have been in the habit of using pepsin will agree with Dr. Hoskins.

Reasoning from a physiological standpoint, pepsin ought to be a valuable therapeutic agent, but thus far the results in practice have been anything but encouraging, and that this is so mainly, because the article prescribed has been either very weak or entirely inert, seems very probable. Dr. Hoskins ascribes active properties to the saccharated pepsin of E. Scheffer, of Louisville, Ky., and indeed I am inclined to believe

that Scheffer's preparation can be relied on with a fair prospect of success. I have tried it in a number of cases with favorable results, as in the case noted below; I have tried again and again the various preparations of this article, and, with the solitary exception of Scheffer's, have been unable to see the least good from their exhibition.

In the following case the good effects of carbolic acid and pepsin are both illustrated:

S. S., *æt.* 18 months, came under my care in August last, when I received the following account: Parents both healthy, with no history of consumption, scrofula, or hereditary disease of any kind on either side; had been a remarkably healthy child prior to April 1st, when he underwent an attack of erysipelas for which medical advice was obtained; soon after began to vomit his food occasionally at first, but the symptom gradually grew worse, the ejected matter being "*foamy* and *yellowish.*" Bowels became troublesome also, evacuations frequent, watery and very offensive, containing shreds of undigested food, the child became dreadfully emaciated and when first seen by me was virtually a living skeleton. He was unable to move in anyway, always keeping the position in which he was placed in the cradle, and unable to cry or utter a sound of any kind, though before his illness was quite a noisy and active child, having learned to walk when only ten months old. On careful examination I could find no lesion of lungs, liver, nor spleen, and indeed, with the exception of the stomach, the viscera seemed in a natural condition, pressure over the epigastrium seemed to occasion pain, though the little sufferer was unable to make it known by crying.

I prescribed small doses of hyd. cum. creta, with Dover's powders, and a small portion of potassa bicarb. before each meal, the food was to be of the most nourishing description and very small in quantity, the epigastrium was painted with cantharidal collodion.

At the end of one week patient was no better and seemed sinking, had to be wrapped in cotton wool and warm applications used to keep up the temperature, bismuth and a small portion of French brandy were added to the treatment which was continued for another week without improvement in the symptoms. At this time, September 1st, I prescribed ¼ grs. carbolic acid

(crystal pure) four times daily, all other medicine to be discontinued, nutriment in the form of brandy and milk to be given in small quantity at short intervals. After the third day the vomiting ceased and returned no more, though the carbolic acid was kept up for a week. The patient was now put on a tonic mixture of iron, quinine and strychnine, and the prospect of recovery seemed fair. It soon became evident, however, that, though the vomiting had ceased and the diarrhœa was somewhat checked, the child was very little better, much of the ingesta was passed unchanged and though the articles of food were continually varied, still so depraved were the digestive powers that but little was assimilated.

On September 18th I ordered the tonic to be left off and substituted Scheffer's saccharated pepsin of which from two to three grains were given with each meal, generally incorporated with the food; from this time forward the treatment consisted of pepsin alone, and the result was most gratifying. In one week the child showed evident signs of recovery, the stools being healthy and entirely free from undigested food. By October 14th, could cry out lustily and stand alone for the first time in four months. The treatment was kept up until November 1st, and then gradually left off, the patient being restored to robust health contrary to the predictions of half a dozen practitioners who had seen the case at different times.

In this case it is quite probable that there was a gastric ulcer, and I am of the opinion that was the sole lesion—emaciation and bowel disturbance being the natural sequence. Trousseau in his work holds out the idea that lesions of this kind frequently depend on a parisitic cause and the good effects of the carbolic acid in relieving the vomiting in this case would be explicable in that way.

This case illustrates the wonderful recuperative power of the system in early life, and teaches us that no condition is so desperate as to preclude the possibility of recovery.

R. B. White, M. D.

Palmer, Texas, March 1874.

Messrs. Editors:

The following extract from the minutes of the St. Louis Medical Society, for March 28th, I deem worthy of publication. The

minutes of that meeting appeared almost in full, in the city papers, hence were not furnished for the JOURNAL.

Intra-capsular fracture of the cervix femoris being the subject of discussion, Dr. H. S. Leffingwell said, "Several years ago, while in the dissecting-room, my attention was called by Dr. Steele to an anatomical fact not mentioned in any work on anatomy, and which I believe does, in part, account for the obscurity of transverse intra-capsular fractures of the hip joint. On opening the joint, a strong tendinous band is found, connecting the articular cartilage with the lower border of the capsular ligament, which in most cases is closely attached to the free intra-capsular portion of the neck. Its strength is increased by the oblique clasping of the neck by the capsular ligament. Sudden and severe extension or eversion, which are most likely to occasion fracture, are restrained by the Y ligament, and then a lessened force again meets restraint, often enough, in my judgment, to prevent separation of the fragments, when the structure above named will also keep the parts in apposition, and obscurity will of necessity exist. According to Prof. Hyrtl, the ilio-femoral ligament is equal in strength to the tendo-achillis. In the case of Baldwin, reported by Dr. Kennard, I believe impaction did first exist, and that obscurity continued so long afterward, because only of natural anatomical structure."

CLAYTON KEITH, M. D., *Rec. Sec'y.*

Hospital Reports.

ST. LOUIS HOSPITAL.

Gynæcological Clinic of Prof. L. CHAS. BOISLINIERE, reported by Geo. E. MCCOSH, M. D.

CASE I.—*Anteflexion with Mechanical Dysmenorrhœa.*

Mrs. Bridget H., *æt.* thirty years, came to the clinic January 8th, 1874. Has been married nine years but for the past year has lived apart from her husband. She has never been pregnant. Does not indicate any time when her illness began, but

now complains of pain in the hypogastric region, frequent micturation, pains of neuralgic character down the inner side of thighs, and severe pains commencing one or two days before the *menstrual flow*, and continuing till its cessation. Catamenia regular but scanty. The pain at this period is intermittingly relieved after severe paroxysms and the discharge of small quantities of clotted blood. Has dyspepsia—not infrequent adjunct to uterine disease. Digital examination showed the cervix in nearly normal position and tender on pressure. Palpation through the abdominal walls discovered the fundus uteri low down toward the pubic arch. Introducing the speculum (Sims') a small conical cervix was brought to view, and found somewhat elongated. Exploration by the uterine *probe* was only possible by bending the point of the probe to an obtuse angle with its shaft. Considerable narrowing of the *internal os* was found, and pressing the point of the instrument against the fundus uteri produced severe pain. The diagnosis was anteflexion of the fundus uteri, with mechanical dysmenorrhœa and endometritis. The patient was also quite hysterical and anemic. The local treatment was of a character to relieve the subacute inflammatory condition.

On February 5th, one week after the cessation of the catamenial flow, Dr. Boisliniere operated by Sims' operation, of section through the posterior lip of the cervix, for the relief of the anteflexion. The canal was then dressed with a large plug of cotton saturated with glycerine and dipped in liq. ferri chlor., and the vagina tamponed, and

Quiniæ Sulph.,	grs. xx.
Pulv. Opii,	grs. ij.

M. Ft. pill No. iv. S. Two every four hours ordered.

After three days the cervical plug was removed and the cut surfaces carefully separated with a large size uterine sound and the cervical plug reapplied. This dressing was continued each *day* till the *tenth* when a lead plug as large as a number X urethral sound, was introduced and the parts permitted to heal. The next period was freer from pain than for years before. Local applications to the uterine cavity, of sol. iodine, were continued for treatment of the endometritis until near the first of May, when the patient was discharged cured. The dyspeptic symptoms had subsided under exhibition of pepsin and sub-

nitrate of bismuth and with the subsidence of the uterine irritation.

CASE II.—*Unruptured Hymen, Vaginismus and Anteversion.*

Mrs. Mary H., *æt.* twenty-four years, and married two and a half years, came to the clinic October 27, 1873. Has no children, and is not certain that she ever was pregnant, though several times periods of six or seven weeks have intervened between the catamenial flow. She is not sure that the quantity discharged after these protracted intervals was greater than at other times. Complains of burning pain in left ovary—and pain in lower limbs and dysmenorrhœa. Digital examination attempted, the finger encountered a thick fleshy unruptured hymen. After considerable manipulation the finger passed through the opening in the hymen and impinged on the uterine cervix pressed backwards against the sacrum. By palpation the fundus could be felt, through the abdominal wall, anteriorly. The excessive vaginismus, and nervousness rendered it necessary to defer the examination with a speculum. Treatment was ordered as follows: Vaginal injections, of water (120° heat) and glycerine, three times a day—and potass. bromidi with elixir valerianate ammonia after each meal.

On November 10th, Sims' speculum was introduced and the thick fleshy hymen lacerated. The uterus was found of normal size and considerably anteverted. Pressure on the fundus by the point of a probe, caused pain in the organ. The diagnosis was unruptured hymen, anteversion and endometritis. By the application of solution iodine, to the cavity, the endometritis rapidly subsided, and with it the dysmenorrhœa was cured. The constitutional treatment from the first was nervous sedatives and tonics with small doses of saline cathartics to regulate the bowels. I am unable to ascertain from the patient whether copulation was ever consumated before the hymen was ruptured by the speculum, neither could we ascertain whether her husband was of normal development.

CASE III.—*Anteflexion with Cervical Erosions.—Thomas' Anteversion Pessary.*

Mrs. Sara B., born in Ireland, *æt.* thirty-three years, and married three years, came to the clinic October 13th, 1873.

Has had one child and no miscarriage. She complains of pains in the pelvis and thighs, and is constantly tormented by a desire to urinate with vesical tenesmus. Has leucorrhœa of whitish color and consistence of cream. Bowels costive. Examination by touch found the os in nearly normal position but tender and roughened. By palpation the fundus was felt through abdominal wall. The patient being placed on the table, Sims' speculum was introduced and cervix uteri exposed. The organ had a red granular appearance bleeding freely when touched, and very tender when seized with a vulcellum. The probe passed into an anteflexed womb rather larger than normal and without any endometritis. There is very little narrowing of the internal *os* and no history of dysmenorrhœa. The local treatment was sol. argenti nitras to the eroded cervix—and sol. iodine to the canal—and warm water injections with soda bibor. twice a day. Pills of quinine and iron were given by the mouth, and small doses of salines to keep the bowels regular, ordered.

On the 30th of October the irritation of the cervix was so far reduced that Thomas' anteversion pessary was placed in position. One week later the patient reported marked improvement and made a rapid recovery. She is still wearing the supporter, and comes occasionally to be examined, and assured that no harm is resulting from the ring, a very necessary precaution to be faithfully observed in all cases, as ulceration may result from pressure, with ulceration and sloughing of the vaginal walls.

CASE IV.—*Anteversion, Endometritis and Endocervicitis.*

Mrs. Mary S., born in Ireland, *æt.* thirty years, and married five years, came to the clinic January 5th, 1874. She has two children, youngest seven months old, but no miscarriage. She dates her illness since the birth of her last child, when she was compelled to leave her bed on the fifth day after confinement. Patient complains of dragging pains in the pelvis, and sharp stinging pain in the womb when suddenly jarred in walking. Has severe ovaritis on the left side and nearly constant pain in the gland, caused by irritation from the hardened feces in the bowel pressing against the inflamed parts. Has difficulty in passing urine, and burning pain in bladder. The urine deposits considerable mucus on cooling. Loss of appetite nearly com-

plete. Patient very anemic and nervous. Bowels very costive. Examination by touch, found the cervix directed backward toward the hollow of the sacrum and tender under pressure. The fundus was felt through the abdominal wall anteriorily. On introducing the speculum the cervix was seen somewhat longer than normal—and its canal gaping eroded of epithelium and inclined to bleed when touched by instruments. The exploring probe passed into an anteverted womb, its cavity tender to the touch of the instrument. The diagnosis was anteversion and endometritis with endocervicitis. The subacute inflammatory condition of the cavity was treated by application of solution iodine and tr. ferri muriat., and warm water injections twice daily. General tonics to give tone to the system, with bismuth subnit.; and pepsin to aid digestion, and small doses of saline cathartics to relieve constipation were ordered. After allaying the local irritation in the cervix, a Thomas' anteversion pessary was introduced with marked relief to the patient. The inflammation of the whole uterine cavity subsided. The appetite returned, and digestion improved. The general health became better though she still nursed her child.

This patient now comes to the clinic two or three times a month. She is nearly cured. The pessary still remains in position, and is invaluable as being the most efficient supporter in anteversion or flexion.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

St. Louis, April 4th, 1874.

The St. Louis Medical Society met April 4th, the President, Dr. Hurt in the chair.

Dr. Borck exhibited a specimen of bone taken from a supernumerary little finger on the left hand of a child delivered by Dr. Newman. The child also had a supernumerary great toe

on its left foot. The child's father had a supernumerary little finger on each hand. Child's mother had two great toes on the same foot. Child's brother had two great toes on the same foot The child's maternal grandfather had a supernumerary great toe on each foot and a supernumerary little finger on his right hand. Dr. Borck advised the removal of the toe having the smaller articular surface with the first metatarsal bone.

Dr. Borck next reported a case of lupus superficialis *vel* serpiginosis, in a lady aged thirty-eight years. (Patient's photograph exhibited.) The disease made its first appearance eight months ago,—as a small pimple,—and advanced slowly over her face. Treatment consisted in iodo-bromide of calceum comp., one drachm three times daily, until six ounces were taken. No local application was made. The ulcer healed kindly and left the peculiar scar, of a white appearance, so characteristic of lupus. The disease reappeared at the same site, after a few months, and his treatment now consists in elixir calasaya one drachm, and two grains of iodide of potassium three times a day, together with the local application of ung. hydr. oxidi rubri. The ulcer is again healing kindly. Patient is otherwise healthy.

The points of interest connected with the last case are, 1, the age of the patient—thirty-eight years—this disease being seldom met with in patients over twenty-five years of age; 2, the peculiar whitish scar shown upon the left side of the nose, while below, the brownish scar is seen in full vigor, with an elevated rim surrounding it; 3, its aptness to be mistaken for impetigo. The slow progress of the case without constitutional symptoms, the peculiar white scar which it leaves, and which is "indellible," and the fact that there is no real ulceration, will readily distinguish this disease from impetigo; 4, lupus superficialis is so seldom met with in general practice, that some writers on skin diseases have not even mentioned it; 5, it is a tedious disease to treat,—lasting sometimes for two or three years; 6, the white scar left in this disease is not met with in any other skin disease.

Writers divide lupus into two classes:—1, Lupus exedens,—affecting the deep parts—destroying skin, muscle, cartilage and bone; 2, lupus non exedens,—which affects only the derma and epidermis.

Dr. Coles exhibited a post-mortem specimen—part of the ilium and cæcum, including the ilio-cæcal valve and vermiform appendix, from a patient recently dead from the effects of perforation of the vermiform appendix. Patient, a male aged forty-four years, had been habitually constipated for the last nine months, since he quit the use of beer. Symptoms during last attack: colic, pains in the abdomen, constipation and obstinate vomiting—could retain nothing on his stomach. This condition continued five days. Dr. Boisliniere was called, and prescribed injections per rectum and a mercurial purge, followed by a dose of oil. This failed to relieve him, and Dr. Coles was called in by Dr. Boisliniere. Patient had retained no nourishment for five days; pulse 85, and strong, abdomen moderately tympanitic, no great pain, and no distinct localized tenderness could be discovered. There was no particular decubitus assumed by the patient. Slight pain occasionally about the umbilicus. The abdominal muscles were rigid. The vomiting was bilious. Diagnosis: obstruction of the bowels, the result of constipation. Desiring to obtain a free evacuation he used copious enemata of warm salt water, but unavailingly, then a rubber rectal tube was introduced with the view of throwing the injection, or air, into the transverse colon, but this tube could not be passed beyond the sigmoid flexure. He next gave two drops of croton oil with twelve grains of calomel, followed in six hours by three pills, at intervals of two hours, each containing two drops of croton oil and one-fourth of a grain each of ext. opii and belladon. No discharge per anum, but copious stercoraceous vomiting ensued for 24 hours. Symptoms at this time: haggard appearance, expression resembling that peculiar to cholera, pulse 104 and feeble, and hiccough—that evil harbinger. He now abandoned all efforts to procure an evacuation and gave opium and stimulants, with lime water and milk. Patient died next day. Autopsy revealed the following lesions. Palpation and percussion failed to detect any local hardness or dullness. On section, the peritoneum was found deeply congested, but contained no serous effusion. The stomach, duodenum, jejunum and upper half of the ilium were pale and healthy. The lower half of the ileum was highly injected and enormously distended with gas and large quantities of yellow matter. The cæcum and colon were empty. The lower lip of the

ilio-cæcal valve was red and thickened. The last two inches of the ileum were practically obstructed and obliterated by organized lymph. The appendix vermiformis was almost completely destroyed by ulceration. Some scybalous lumps were found in the iliac fossa and one free inside the abdominal cavity. The gall bladder was adherent to the pyloric end of the stomach, and its walls contracted over a very large gall calculus. Here was the key to the patient's death, but not a satisfactory explanation of his symptoms. He had met with several cases of perforation of the vermiform appendix and typhlitis, but none in which the lesions were as severe and the local symptoms as mild and obscure as in this case. The mischief was irreparable. Patient was doomed from the first, and would have died in any event. Post-mortem proved that a part of the treatment adopted by Dr. Boisliniere and himself was inappropriate. He reported the case as an illustration of the occasional obscurity of disease.

Dr. Edgar reported a somewhat similar case occurring in his practice. Patient was relieved by applying leeches over the ilio-cæcal region; of course there was no perforation, and now enjoys fair health. He considered it sound practice never to give a mercurial purge in any case of obstruction of the bowels. He would not give an active drastic cathartic as in the case reported by Dr. Coles, but a laxative. He would pass a rubber tube into the intestine and inject a solution of bicarb. sodæ first, and tartartic acid following it, and produce a volume of gas, distend the gut and overcome the intussusception, as he had done previously at the suggestion of Dr. Prince.

Dr. Newman endorsed Dr. Edgar's treatment. Drastic purgation is highly improper in cases of artificial obstruction of the bowels. Mercury is not only useless but positively injurious in such cases. He related a case of supposed intussusception of the bowel accompanied by stercoraceous vomiting, obstinate constipation and great pain in the abdomen, cured by inflation—Hypocrates' method. He pumped as much air as possible into the gut. Permanent recovery followed in a few days. Three weeks afterward a second case of supposed intussusception and twisting of the intestines occurred, with similar symptoms. Treatment, copious enemata of warm water and inflation. Patient died. No autopsy granted. Soon afterward a third

ease occurred. Singular but true that curious cases should occur in groups; this is the experience of every practitioner. In this case he was called in consultation by Dr. Prewitt. He (Dr. Newman) suspected intussusception, and advised inflation. Dr. Prewitt on the contrary suspected peritonitis and therefore avoided purgation; gave morphia and patient recovered.

Dr. Hughes related a case of intussusception or invagination treated by warm baths, and hot fomentations over the abdomen to produce relaxation; he used copious enemata of warm salt water and warm soap suds to act mechanically upon the obstruction, then gave chloroform and placed the patient in the knee-elbow position. Treatment was successful. Obstruction may be due to either of three causes. 1, Intussusception; 2, inflammation; 3, mechanical causes—*e. g.*, scybalæ. Calomel is contraindicated in cases due to either the first or second cause It may be given in cases due to the third cause, if any cathartic be admissible.

Dr. Porter reported a case of congenital hydrocephalus—child died aged seven months. Parents were both healthy—though strumous diathesis existed in the mother's family. Labor was natural. Head was about three times the normal size; otherwise the child was well developed and healthy. At two months, circumference of head was 22 inches, sagittal suture separated 6½ inches, lambdoidal suture separated 3¼ inches, and coronal suture was separated 5¼ inches. Circumference of head at death was 36 inches. Appetite continued good—no evidence of severe suffering. He made no attempt to control the hydrocephalus, believing it utterly useless. An arrest of development in body and extremities. Hydrothorax appeared two days before death. Autopsy revealed the following: Weight of head 20½ lbs., weight of body 4¾ lbs. Parietal bones were six by eight inches each. The cranium contained two gallons and one pint of fluid, secreted in the ventricles of the brain. The cerebrum was about $\frac{1}{16}$ of an inch in thickness. The cerebellum was intact. The parietal bones were full of holes and fissures. The convolutions of the brain though flattened were intact. He presented the case because of its singularity in one so young.

Dr. Hodgen exhibited a part of the cerebrum from the same child. The convolutions of the brain—the cerebral hemispheres—

had been spread out by distention until they were as thin as a sheet of blotting paper and enveloped the enclosed fluid like a sac. The specimen resembled the thickened dura mater rather than brain substance, and yet it included the gray and white substance of the brain.

Dr. Hughes related a case of hydrocephalus in a child eleven years of age. The effusion was within the ventricles of the brain. He had never seen an effusion any where else than within the ventricles, though two other localities are mentioned. His patient had some mentality.

Dr. Kennard reported a case of hydrocephalus in a child nine years old. It lived to be twenty-three years old. It was idiotic and helpless.

Dr. Laidley reported a similar case, in which the head was three times the normal size. There was no impairment of intellect.

Dr. Keith reported a case of hydrocephalus in a child two years old; circumference of head was forty-four inches, or double that of an adult. Patient was the child of strumous parents. He informed the parents that the case was hopeless, admitting of no treatment either medical or surgical; that surgical interference would be both cruel and useless at that stage of the disease, although many instances of paracentesis capitis were recorded, and a few successful. He suggested that pressure might have been employed soon after birth, with benefit; or, that a small quantity of fluid might have been evacuated by means of the aspirator, and a compress and bandage, *i. e.*, gentle pressure applied, at the same time the father was made acquainted with the probable results, viz: meningitis, cerebritis and death. He mentioned Dr. Bright's patient, "Cardinal," the celebrated hydrocephalic man of London, who died in Guy's Hospital in 1825, at the age of thirty-two years. The circumference of his head measured 38½ inches. The amount of fluid in his cranium equaled ten pints. He related the result of autopsy in a recent case: The convolutions of the brain were unfolded, and the cerebral matter spread out in thin layers like a knife blade, surrounding the enclosed liquid like a bag. It was evident that should an operation have been performed the trocar must first penetrate the cerebral substance in order to reach and evacuate the fluid, hence cerebritis was inevitable.

Dr. McPheeters related a case in which he had suggested the propriety of applying gentle pressure for the relief of hydrocephalus. He now, however, advised against pressure as a tentative means of absorption. He thought death *secundam naturam*, preferable to death *secundam artem*.

Dr. Kueckelhan considered pressure beneficial in preventing the re-accumulation of fluid after tapping. Gentle pressure was void of danger. Referring to the case reported by Dr. Coles he said, these cases occur most frequently in women, passed middle age, whose abdominal muscles have become relaxed from child-bearing, and generally at this season of the year, *i. e.*, about the close of winter. Neither mercury, croton oil nor salts should be used in such cases, as these remedies all inflame the bowels. He used an emulsion of castor oil and turpentine in these cases; chloral and injections of warm water also. He would try all the rational modes of treatment, and if not successful, he would *not* grab at irrational methods. Such patients usually live two weeks, and are very troublesome.

Dr. Johntson said cases of hydrocephalus occur most frequently in the summer, and among children of scrofulous parents. They are hopeless cases. Effusion is generally within the ventricles, though it may be outside and within the arachnoid. He considered intussusception due to a want of peristaltic action and consequently to atony of the muscular coat of the intestine—all due to a deficiency of nerve action. He considered calomel an irritant and stimulant, and it would only increase the inflammation of the bowel in the case reported by Dr. Coles. He favored a surgical operation in such cases, rather than let the patient die for the want of it. He referred to the exploring incision made by Phillips, of London, for the relief of such patients.

Dr. Edgar had known ptyalism produced in two cases of constipation, due to nervous shock, after the receipt of injuries, without effecting a passage. Purgative doses of calomel do not act as a cholagogue. Small doses of calomel continued for twenty-four hours may produce bilious stools. He favored the use of electricity in such cases. Electricity acts as a cholagogue and stimulates the torpid bowels to immediate action.

Society adjourned.

ST. LOUIS, May 9th, 1874.

Dr. Edgar reports the following case of pleuro-pneumonia, complicated by disease of the heart, liver and pancreas: Capt. H., *æt.* 62, on April 1, 1874, complained of cough, dyspepsia, palpitation, dyspnœa and pain in precordial region, pulse 80 and intermittent, habitual constipation, dyspnœa increased on reclining, with apprehension of suffocation, expectoration at this time slight; between the confused rales, murmurs, and other abnormal sounds, considerable difficulty was experienced in determing a diagnosis. That the heart was involved either in special valvular disease or from excentric hypertrophy, and consequent enlargement of its cavities, whereby the orifices became generally involved by distorted and insufficient valvular coverings, was not clear, but the latter rendered probable by the evidence of congestion of the capillary circulation, anasarca commencing to appear in various parts of the body. A palliative treatment was recommended until the 29th of April, when the patient was again seen, the case having remained much the same until the day previous, when an abscess opened into the bronchiæ, from which a large quantity of pus was expectorated, which expectoration continued with rusty and bloody sputa, no respiratory murmur over the right lung, percussion sound flat, pain acute in right side on cough or deep inspiration; it was supposed the abscess might be hepatic, pointing in this direction. No remedies seemed adequate to this combination of disease; only proving palliative until the 8th of May, when he expired. The intelligence and generous courtesy of the deeply afflicted family was manifest in their permission to have an autopsy, which was performed by Dr. Lankford, with my aid, on May 9th, fourteen hours after death. Rigor mortis moderate, adipose indicating ordinary nutrition, surface deeply tinged with yellow, except the under surface ecchymosed from decubitus. On raising the anterior wall of the chest the left costal pleura was found adherent, tied down by bands of fibrine, the same being attached to the pericardium and diaphragm extending completely around the right side of the chest, also to the lung, gluing firmly together the entire mass. On incising this lung a cavity was exposed in near proximity with the diaphragm, extending towards the bronchiæ where a chain of lymphatics was discovered greatly enlarged and indurated; the lung in all parts

was found either infiltrated with blood or hepatized. The left lung was free from adhesions to the pleura but considerably engorged with blood. On dividing the pericardium the sac was found to contain more serum than natural as did also the peritoneal cavity. The heart was found inclining to the *right* side, the apex elevated, the right side being bound down and back by adhesions between the pericardium and pleura. The organ was larger than normal and its walls attenuated and impaired by fatty degeneration. The hypertrophy was excentric, producing enlarged cavities, thus rendering the valves insufficient to cover the openings; hence the congestions from regurgitation. The pancreas was greatly enlarged, being twice the normal size. Microscopic examination revealed little except fatty degeneration of the pancreas and liver, and sanguino-purulent engorgement of the lungs—no tubercle notwithstanding the abcess. This case was chiefly interesting from the extent and variety of disease. In this case nothing was expected from treatment but to palliate the most painful and distressing symptoms.

CLAYTON KEITH, M. D., *Rec. Sec'y.*

PIKE COUNTY MEDICAL SOCIETY.

The Pike County Medical Society met in Louisiana, Mo., on the 25th of May. The following names were enrolled:

Dr. S. B. Ayers, E. M. Bartlett, J. T. Bell, H. E. Jones, A. C. Lonergan, J. T. Matson, J. S. Pearson, C. Pearson and W. T. Stewart, Louisiana; J. R. Buchanan, J. J. McElwee and C. W. Pharr, Clarksville; S. W. Buckner and J. W. Bankhead, Paynesville; O. C. Hawkins and M. Reynolds, Bowling Green F. W. Smith and J. H. Hanna, Frankford; J. T. Craven and J. A. Matthews, Ashley; E. B. Rule, Reading; and W. C. Duncan, Calumet.

An organization was effected by the adoption of a constitution and by-laws and the election of the following officers for the ensuing year:

Dr. F. M. Smith, President; Dr. E. M. Bartlett, Vice-Presi-

dent; Dr. S. B. Ayers, Recording Secretary; Dr. J. H. Hanna, Corresponding Secretary; Dr. H. E. Jones, Treasurer.

Resolved, That the Society meet monthly.

The code of ethics of the American Medical Association was adopted.

The following committees were elected:

Elections—Drs. H. E. Jones, W. T. Stewart, and A. C. Lonergan.

Publication—Drs. J. S. Pearson, J. H. Hanna, and J. T. Craven.

Drs. C. Pearson, Matthews, and Smith, were appointed to read essays at the next meeting. Society adjourned.

The Pike County Medical Society met in Louisiana, June 25, 1874, Dr. F. M. Smith in the chair.

Dr. C. Pearson read an interesting paper on Epidemic Catarrhal Fever, which elicited a free discussion. Dr. J. A. Matthews read a well-written article on Uterine Catarrh. Dr. F. M. Smith also read a brief paper on the same subject. Both papers elicited a discussion, in which the members generally participated.

The chair appointed the following essayists for the next meeting:

Dr. Craven, on Inflammation; Dr. Jones, on Cholera; Dr. Hanna, on Erysipelas.

Society adjourned to meet in Bowling Green, Thursday, July 30th, 1874, at 9 o'clock A. M.

S. B. AYERS, M. D., *Rec. Sec'y.* F. M. SMITH, M. D., *Pres't.*

Reviews and Bibliographical Notices.

THE SCIENCE OF HOMŒOPATHY; or a Critical and Synthetical Exposition of the Doctrines of the Homœopathic School. By Charles J. Hempel, M. D. New York: Boericke & Tafel. 8vo., pp. 177. Price $1.75.

We have turned the pages of this book with more than ordin-

ary interest (seeing the writer is acknowledged authority with the homœopathic school), hoping to find in this work a clear, intelligible statement of the accepted distinctive doctrines of homœopathy, if such enunciation was possible. We well remember what it claimed to be when first promulgated in this country, viz: that drugs *gained* power by trituration and division, instead of *losing* power according to the common sense of mankind.

Their theory of the *action* of medicines, similia, etc., was neither new nor important, being simply an hypothesis, a guess, not a demonstrative fact: but increase of the effect or power of the dose, in proportion to its smallness, was claimed to have been demonstrated, and this it was that attracted public attention. The reaction in the public mind from excessive dosing having set in, the extreme of infinitessimal nothing was eagerly accepted by a certain class of minds given to follow the mysterious in religion, philosophy or medicine. Spiritualists, transcendentalists, comprising a large class, with whom may be enumerated men and women of good sense and education, but who were profoundly ignorant of medicine, and considered *homœopathic* equivalent to *expectant* treatment, that "it would give nature a chance and do no harm if it did no good," therefore preferred it to *overdosing*.

But the infinitessimal dose was soon put to the test, and found wanting. The worshipers of Hanneman were compelled to adopt the *ordinary dose*, in all urgent cases, to sustain themselves. Now a new definition of homœopathy is a necessity, and for the first time we are told it is not the dose, but the *theory of its action* that is distinctive, a medicine given on the principle of "similia similibus curantur" is a homœopathic remedy without regard to the amount of the dose.

Since this change of base we have from time to time looked into their literature, and finally into the work before us, for a rational definition of homœopathy as pronounced by the acknowledged authorities in the faith, and here we have it, on the 61st page. "Homœopathy is a theosophic revelation. It is a philosophic system, not fenced in by the limits of a human brain, but which is co-eteral and co-infinite with the love and wisdom of the divine Creator. Homœopathy leads us to comprehend the great fact that there is but one life, which is the

eternal, unchanging, and self-existing Esse; and that phenomenal nature is but an endless and infinitely varied series of forms of, or capacities for, the reception of life, each agreeably to its own order, destiny and laws."

Now we have the explanation why we didn't see the rationale of this wonderful system. It is co-eternal and co-infinite with the divine Creator, necessarily incomprehensible to *finite beings.* Of course the homœopaths do not understand it, how can they explain it to others! But the worst feature in the book is that it contains mis-statements of facts, *e. g.*, page 53. "What is the doctrine of the physiological school to which Broussais had vowed allegiance? Inflammation is simply an excess of vitality; rheumatism, an excess of vitality in the fibrous and muscular tissues; scrofula is a simple modification of the lymphatic vessels; insanity, a simple exaltation of the cerebral function.

"Thus it is that according to the doctrines of this school (meaning the regular school of medicine) diseases cease to be pathological conditions, and are reduced to the rank of simple physiological disturbances, which are to be met simply by physiological means."

An author who either does not know, or who is not particular to state the truth, forfeits his claim to public confidence.

It is our belief, after looking this book over somewhat carefully, that if it could have been pruned of its chaffy verbiage, redundant adjectives, expletives, meaningless sentences, and mis-statements, the few pages left might have been published in one of the monthly journals.

The more transcendental nonsense is indulged, the less room for common sense.

A Conspectus of the Medical Sciences: comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery and Obstetrics, for the Use of Students. By Henry Hartshorne, A. M., M. D. Second edition, enlarged and thoroughly revised, with 477 illustrations. 12mo., pp. 1024. Philadelphia: Henry C. Lea, 1874.

[For sale by Gray, Baker & Co.]

Having given a somewhat extended notice of the first edition of this work in the May number of the Journal, 1869, it is only necessary to call the attention of our readers to the issuing of the second edition, and that changes have been made in it neces-

sary "to adapt it to the present state of science and medical teaching; the chief of which has been in chemistry, and is furnished the student in a section upon the *ideas of modern chemistry*, and in giving both the old and the new equivalents and formulæ of important substances and reactions."

In materia medica fourteen new articles have been added, a few of minor consequence omitted, and the nomenclature made to conform to the last edition of the U. S. Pharmacopœia. On practice, some minor changes have been made, and an increase in the number of illustrations. Also in surgery, a chapter on skin grafting.

In the department of obstetrics, three topics—surgical diseases of women, rupture of the perineum, and ovarian tumors—have received additions of new matter. The whole book has been carefully revised. In sending forth this work Dr. Hartshorne does not intend to place a premium on indolence, but to prompt the memory of the student who has studied faithfully the more extended text-books, that in his ultimate examination he should not fail to receive the credit due him for faithful work, by his failure on test questions, and allow the scalawags to surpass him by "cramming" and special drill. The type, paper and binding is all that could be desired.

ELECTROLYSIS IN THE TREATMENT OF STRICTURE OF THE URETHRA. By Robert Newman, M.D.

We have read with much interest this paper, as all strictures of the urethra falling under the observation of the author for several years, have been treated by electrolysis, the trial seems impartial, and result important to be known to the profession. The object of the paper is to give typical cases, and explain the "modus operandi" of the remedy. "The *negative pole* of the galvanic cautery should be applied to the stricture, and that with a weak current, that the chemical disintegration and absorbtion may be promoted gradually, without danger; that in static or faradic electricity, there is no appreciable difference in the poles." Dr. Newman's contribution is worthy of grateful acknowledgment by the profession.

A TREATISE ON THERAPEUTICS. Comprising Materia Medica, and Toxicology, with especial reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By

H. C. Wood, Jr., M. D. Philadelphia: J. B. Lippincott & Co. 1874. 8 vo., pp. 578.

[For Sale by the St. Louis Book & News Co.]

We sometimes meet with the expression from reviewers, that of "new books there is no end," thereby more than intimating that the stranger is not welcome; where the inspection is entered upon in this spirit, it would be strange if anything commendable should be found. The mistake in the reviewer is in assuming that any one person, or any people have fully achieved in any department of knowledge; that all the possible is attained; every view of the subject has been considered. We never object to adding another *good work* to those we have, on any subject, however numerous they may be. We have many surveys of the route over the North American Continent, yet who shall say the best route for a highway is not yet to be discovered? What has been done is not only valuable, but aids in the further prosecution of the work.

If one is about to take the stand to testify as an expert in a fatal case of poisoning, involving a medico-legal question, does he think we have too many books on Toxicology and Jurisprudence? Does he omit to consult *all* of the authorities, however numerous? If he does *before* he *takes* the stand, he is likely to change his mind before he *leaves it.* If a book reflects truly the mind of the author, his opinions matured by careful study and practical observation, it is likely to be valuable, particularly as the word "authority" in the medical usage is quite different from that in law or divinity. We recognize no authority except that of facts in nature. The man who is most successful in exploring and uncovering facts is best authority; names rendered prominent by position or advertisement go for little as authorities in the medical profession. The "one book man" is said to be a *dangerous man,* which may be true, both on account of his *knowledge* and *lack* of knowledge. As a controversialist, he may be ready and positive, with some knowledge. In the practice of medicine, his knowledge, limited to one book, would be a most dangerous thing.

On the classification of drugs, we read on the 20th page: "So many medicines are stimulants, and sedatives at the same time; stimulant to the one function and sedative to another; the relations between the system and medicines are so complex; our

knowledge in the future will probably remain as it in the present so fragmentary, that the idea of a fixed physiological classification seems to me little more than a dream. Certainly, at present all that can be reasonably demanded of any system is that it be a convenient row of pegs upon which to hang our ideas and facts, so that they may be easily retained, and be easily accessible when wanted. Under these circumstances, I venture to offer, as the basis of the present treatise, the following clinico-physiological classification, founded upon, but very different from that of Prof. Geo. B. Wood. 1st, substances which act on the solids and fluids of the body; and 2d, substances which act externally to the body." Dividing the first into general and local remedies; and under the second head are arranged antacids, anthelmintics, digestants, absorbents and disinfectants.

Each remedy is treated of 1st, its description and preparation; 2d, its physiological action; 3d, its therapeutic application; 4th, its administration. The general rule by which to regulate the dose recommended, is that by Dr. Young, *i. e.*, to add twelve to the age and divide the sum by the age.

The chief variation from other authors in the grouping of remedies we observe, is that of "Analgesics," under which head, opium and its preparations, and cannabis indica only, are grouped. Under the head of "Mydriatics" belladonna, strammonium and hyosciamus are grouped. Astringents are defined those drugs which cause contraction of living tissues. * * "Every living soft tissue appears to possess a normal degree of condensation, which may be departed from on either hand; when this happens, the part is said to be relaxed, in the one case, in the other to be astringed, or its tonicity increased." Tonics are distinguished by affording increased power, by increasing nutrition; the influence not being followed by depression, thus differing from simple stimulants, or astringents. Thus clear and intelligible are the distinctions drawn between the different classes of drugs.

The reader of this book clearly appreciates the fact stated in the preface by the author, that he has been led to the execution of this work by experiencing the want of such a work.

So far from a purpose to write a book for the advertisement or eclat of authorship, the fountains of knowledge have been held for selection and condensation into one moderate

volume, in which the method of the author in approaching the difficult task is quite original, and we can readily believe, as he says, "suggested by his own wants." In this regard we are satisfied his wants will prove typical, and not peculiar. No practising physician can read this book without feeling thankful to the author for this timely aid to practical medicine, who will not sincerely regret it could not have been placed at his disposal in the beginning of his professional career; so often would its additional light materially have helped to thread the dubious way.

Those of us who are nearing our journey's-end may truly regret that we have not twenty or thirty more years of professional life, in which to atone for the many blunders from groping in the shadowy and uncertain twilight of the past. No physician or student can afford to be without this work. The publishers' part is neatly and substantially done.

BOOKS AND PAMPHLETS RECEIVED.

REPORT OF THE QUEBEC LUNATIC ASYLUM. By the Medical Superintendents. Quebec: Printed by L. H. Hurt, 1872-1878.

RARE CASE OF CONGENITAL SYPHILIS. By L. Duncan Bulkley, A. M., M. D. New York: D. Appleton & Co., 1874.

ON THE CONSTRUCTION OF THE DARK OR DOUBLE-BORDERED NERVE FIBRE. By Dr. H. D. Schmidt, of New Orleans. With plates.

DISEASES OF THE CONJUNCTIVA. By Dudley S. Reynolds, M. D. Louisville: Printed by John P. Morton, 1874.

ELECTRO-THERAPEUTICS. A Condensed Manual of Medical Electricity. By D. F. Lincoln, M. D. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

INORGANIC CARDINAL MURMURS. By A. T. Keyt, M. D., Cincinnati. *From the Lancet and Observer.*

A NEW APPARATUS FOR EXTENSOR PARALYSIS. By John Van Bibber, M. D. New York: D. Appleton & Co., 1874.

PREMIUM LIST for the Kansas City Industrial Exhibition and Agricultural Fair, to be held in Kansas City, Mo., September 14th to 19th, 1874.

THE UNION UNIVERSITY CATALOGUE FOR 1873-4. From the Albany Medical College.

CONSTITUTION AND BY-LAWS OF THE ASSOCIATION OF THE ALUMNI OF THE ALBANY MEDICAL COLLEGE. All graduates of this institution are requested to send their names and addresses to the secretary of the college, W. G. Tucker, Albany, N. Y.

RESUME OF THE MODERN VIEWS OF THE PATHOLOGY AND TREATMENT OF GLAUCOMA. By C. S. Fenner, M. D., Louisville, Ky.

Extracts from Current Medical Literature.

Address on the Progress of Medicine. Read before the East Sussex and West Kent District Branches, by John Richard Wardell, M. D., F. R. C. P., Physician to the Tunbridge Wells Infirmary.

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Phthisis.

Thirty years ago the average duration of phthisis was about two years. Under improved treatment it is now estimated at four years. It has also been conceded that, in some cases, the disease admits of positive cure. Though such instances are exceptional, still they are sufficient to inspire us with the hope that with the progressive increase of our knowledge will come greater and greater success in this direction of our endeavors. *Post-mortem* researches teach us that pulmonary cavities, even of considerable dimensions, may contract and heal up, and absolute recovery be the result; indeed, it may be added that such obliteration of these excavations are more usual than in former years was supposed. Our definition of the pathology of phthisis is more exact and defined. We now talk of fibrosis of the lung, a degenerative deposit which bears much resemblance to the amyloid substance; of embolic phthisis, in which are

cheesy deposits and disintegrated blood-clots; of bronchial and pneumonic phthisis, characterised by cheesy matter and ulceration of the bronchi, or with exudation into the pulmonary tissue; and of syphilitic phthisis, with gummata allied with the cheesy product. These pathologic distinctions in the description of phthisis render its treatment more successful. The late animated and diffuse debates on tuberculosis have, with other elucidations of its nature, clearly shown the infectious properties of phthisical inflammation. It is now believed by Niemeyer and others that phthisis may follow hæmoptysis without genetic connection between the hæmorrhage and the pneumonic process; and that blood retained in the alveoli gives rise to inflammatory products, which undergo the cheesy change, and that such metamorphosis is followed by tubercle. Grey and yellow tubercles are now shown as being identical; and an intermittent pyrexia or chronic phthisis has latterly been looked upon to denote the absorption of caseous matter. Such are some of our advances relative to this common and justly dreaded disease. * * * * * * *

Continued Fever.

The definitions of the three types of continued fever, which we can now give, and which are of such inestimable worth in a practical point of view, were then unknown. With these descriptive accounts of their essential differences, the mists which once obscured the pathology of fever have passed away, and trustworthy landmarks stand out—founded on the bases of truth and fact—as guides to all future times. I shall not stop to indicate in any detail the cardinal characteristics of each species which are now so familiarly known, but content myself with the mention of a few of the more important considerations. It is curious, but the Hippocratic and Galenic theories have received confirmation in our own day by the researches of Virchow and Traube. It is now acknowledged that, whatever may be the changes which fever-poison primarily exerts on the blood, the first intelligible physiological effects are in the nervous system, and in the sympathetic and vagus in especial. The increased oxidation of nitrogenous tissues, the commensurate evolution of heat, augmented heart's action, and the non-elimination of metamorphosed products, are the great predominating and fundamental changes in fever. These are the forerunners

of all other morbid processes, and between the sum of their excess and the degree of perverted secretion there is correspondent relation. Increase of heat is the symptom pathognomonic of pyrexia. In the recognition of specific differences in fever, we are by parity of reasoning compelled to admit that their material causes differ. The character of tissue-change is determined by the character of the specific poison. It is the opinion of modern pathologists, that the *materies morbi* always invades the organism from without. We now have a vast array of proofs that overcrowding, bad or insufficient food, and mental depression, are the main circumstances which precede epidemics of typhus; that decomposed organic matters produce the enteric form; and that relapsing fever is so apt to follow on the the heels of destitution, as to have acquired the synonym of famine-fever. Such are the cognizable, the preventable states, entering into their causation. Those vital and chemical pr
which produce combustion of what is called the store-albumen of the blood, mainly give off urea and uric acid; and it is to the retention of these urinary solids that prominent symptoms and intercurrent affections are almost if not wholly owing. It is from these products of metamorphosis that congestion, a low form of inflammation, and uræmia, supervene. Hence, in treatment, to favor elimination is of supreme importance. Before all this new light shone forth, our remedies were prescribed with great dubiousness and much perplexity. We could not anticipate events. We did not know what to expect during the course of the respective species. By the non-recognition of those types which are so distinct and reverse in their essence and phenomena, fears were then unnecessarily aroused, and dangerous symptoms were sometimes regarded with too little heed. In this our day, we know typhus by its mode of accession, its rubeoloid rash, the absence of diarrhœa, the grave impress made on the great nervous centers, the drawing in of the abdomen, and the average date of the crises. In enteric fever, its slower beginning, the lenticular rose-colored spots, diarrhœa, tympany, pain and gurgling in the right iliac fossa, the cleaner tongue, and less cerebral disturbance, tell plainly of its nature. The sudden accession, quick pulse, great heat, icteric tendency, the abrupt resolution by diaphoresis when the apyrexial state becomes at once complete, and, in the course of a few days, the repetition

of primary symptoms, pronounce the relapsing type. Nearly thirty years ago, I pointed out the fact that the temperature in relapsing fever may be 107 or 108 deg. Fahr. without the case assuming an alarming form. In typhus, and in the enteric species, we contemplate with deep and just anxiety such a high reading of the thermometer. Again, in the two last named types, sudden and powerful diaphoresis is not unfrequently a fatal symptom. In each of these three species, we now not only know great cardinal and distinguishing characteristics during life, but what to look for—all changes which we do not expect to discover till after death. In typhus, there is no specific lesion. We do, however, in typhus find brain-atrophy, œdema of the pia mater, and active and passive congestion; but in enteric fever we find specific lesions in the ulceration of the agminate and solitary glands of the ileum, and sometimes sparcely scattered in the colon. In a number of *post-mortem* examinations made on those who had died of relapsing fever, I did not in a single instance find these ulcerations, but always more or less of splenic disease. In typhus, we dread cerebral mischief and muscular degeneration enfeebling the heart; in enteric fever, failure of cardiac power from ganglial impression made by the specific poison, intestinal hæmorrhage, and perforation; and in relapsing fever, cholæmic and uræmic poisoning are often associated with the fatal catastrophe. Some time ago, at one of our Branch meetings, I read some cases of uræmic poisoning, and showed how the phenomena of this mode of blood-contamination closely resemble the phenomena of essential typhus. The typhoid state of the specific pyrexia, and the typhoid state from renal disease, are sometimes so correspondent, that the thermometer alone can solve the difficulty. I know no instance in which thermometry so opportunely and in such elucidative manner comes to our aid. Again, during the first week of continued fever, to note the temperatnre is often to conduct us to a right diagnosis. Such are some of our gains concerning continued fevers.—*British Medical Journal.*

Typhoid Fever.

Two important facts appear to have been established comparatively recently:—1. That typhoid fever may be generated *de novo* from habitual drinking of water contaminated with

sewage, or from exposure to gaseous emanations from sewers. Dr. Murchison cites numerous instances of sporadic and limited epidemic outbreaks of enteric fever, the spontaneous origin of which in sewer emanation, and in contaminated drinking water, was proved to a certainty, there being no proof of previous pollution with enteric excreta. 2. That milk possesses such absorbent properties that if merely exposed in an open vessel in the neighborhood of a typhoid case, it may become a vehicle for the poison. (Dr. J. Dougall, p. 44.)

Try the sulpho-carbolate of sodium, on the principle of Dr. Sansom's antiseptic treatment of small-pox. Give 20 grains every four hours to an adult, and gradually increase during the next few days to 30 grains. Beyond this you may produce cerebral symptoms. Children require much smaller doses, and may have very small doses of Batley's liq. opii sed. to assist in checking the diarrhœa. If possible, give the remedy during the period of incubation. (Dr. S. Skinner, p. 35.)—*Braithwaite's Retrospect.*

"*The Proper Treatment of Children, Medical or Medicinal.*" Being the Annual Discourse before the Massachusetts Medical Society, June 4, 1878. By Charles E. Buckingham, M. D., Prof. of Midwifery and Medical Jurisprudence in Harvard University.

[As the season for the diseases of children especially is upon us, we will give some extracts from the very valuable phamphlet, whose title is found above.]

On page 12 we find the following statement of statistics:— "The population of Massachusetts at the time of taking the last census, 1870, was 1,457,351. There were born, of living children in the years 1865 to 1870, 209,989. There died in the same years, of children under three years of age, 47,671; and of these 31,326 were less than one year old. There were living in 1870, 95,346 children under three years of age. That is to say, that in those six years, there died of children under three years old, only two less than one-half the number living in 1870, and of these more than six-tenths died at the age of less than one year. Why this mortality, is a subject for us to investigate. * * * Why should there be so large a mortality among human beings in infancy, compared with the mortality among domestic ani-

mals? There are several causes, some of which may be avoided and some of which neither law nor argument can overcome."

Page 14: "Of 9,873 children who died in Massachusetts in 1870, under the age of five years, 1,914 were reported as by cholera infantum, 477 by convulsions, 298 by diarrhœa, 273 by dysentery, 110 by enteritis, 495 more were called infantile, 166 by canker, 2 by starvation, 302 by tabes mesenterica, 308 by teething. Leaving out the 610 deaths by causes reported unknown, and 366 by hydrocephalus, more than three-fourths of all reported as from those causes, considering what we know of the causes of convulsions, diarrhœa, dysentery, etc., it cannot be unfair to infer that at least one-half of all these deaths were caused or consequent upon diseased digestive organs. That is to say that of the 9,873 deaths of young children, more than one-half were from diseased digestive organs."

Of the *simplicity* of *food* and its *dilution* he speaks strongly, and gives the same sentiment from an author,—Dr. Cummings, of Atlanta, Ga.,—who wrote a little, unpretending, but useful tract some years ago, upon the subject of artificial feeding, in which he recognizes the fact, "that it is an easy thing to raise a feeble child *if you do not too much strengthen its food.** Indeed, he believes, in view of what he calls the degeneracy of the women of this age and country, that artificial food made from the milk of another animal, may result in uninterrupted health, with vigor and energy of the bodily functions."

Again, page 17: "Examples are frequently brought forward of children, who, from the earliest period of life, have fed on cow's milk, almost pure, and have lived and done well. For every such case I believe that any gentleman who keeps written records of his cases, can show accounts of twenty who have died. The stomach of the new child was not made to digest, and cannot digest starch nor muscle, nor the firm casein of the cow or goat." "The earlier age at which it (the milk) is drawn from the breast of goat, or cow, or woman, the less casein is to be found in it. In case of the woman, the percentage of casein in the solid constituents varied from sixteen at the beginning, to thirty-one at the close of four months' nursing, while the percentage of sugar ran down from forty-nine to thirty-six

[* The *italics* are ours. G.]

during the same time. * * * The milk of woman, with whatever it be curdled, forms its coagulum in smaller flakes, soft, and easily broken down; that of the cow is in solid masses, like the factory cheese, of which it is a specimen. * * * The addition of bicarbonate of potash * to the milk as soon as it is received (from the dairy), not only prevents its becoming acid, but also prevents the formation of such firm curd in the stomach, as would otherwise be the case. * * Addition of water alone to the milk, does not sufficiently humanize it. The addition of cane sugar as a substitute for milk sugar, which human milk contains more largely than cow's milk, does not add much to the digestibility of the latter. That the child generally does better with pure crystallized cane sugar than without any sugar added to its artificial food, there is no doubt; but it is not a perfect substitute for sugar of milk, often becoming vinegar in the stomach, and aggravating the sorrows of the infant dyspeptic. On the other hand, the sugar of milk is more likely to be properly digested, and, should lactic acid be the result, it is less likely to disagree."

All cows are not alike. The boasted "one cow's milk" does not help the matter. Prof. Simon's analyses show: The solid constituents of cow's milk varied from one hundred and thirty-nine to one hundred and forty-three parts in a thousand; and the largest amount of casein of this was fifty and three-tenths per cent., and the smallest was forty-eight per cent. On the other hand, in numerous specimens of the human milk, the maximum of solid constituents was one hundred and thirty-eight and six-tenths parts in a thousand; the minimum was eighty-six parts only; of these constituents the amount of casein was thirty-two and six-tenths per cent., and the other twenty-two and seven-tenths only. * * * * * *

(To be continued.)

On Typho-Malarial Fever.

At a meeting of the Wayne County, Michigan, Medical Society, reported in the Peninsular *Medical Journal*, December, 1873, Dr. Koerper, U. S. A., said that at the South typho-malarial disease was formidable. He gave hyd. chlor. mite, or mass. pil. hyd., following it with ol. ricini, and subsequently with

* One half grain to each fluid ounce of milk.

large doses of quiniæ sulph., xx to xxx grs., being given at a dose and early in the attack; turpentine was given later, and also stimulants, after Wood. He makes a decided distinction between intermittent and typo-malarial fevers; the former yield more readily to quinine. He did not believe in very free use of cathartics. This fever is extremely violent at times in the South, and he believed that it influenced the present outbreak of yellow fever at Shreveport.

Dr. Mulheron did not agree with Dr. Book, in either his diagnosis or treatment of typho-malarial fever. It arose from two distinct causes; its typhoid character was shown in the inflammation of the intestinal glands; he had now under treatment two cases in Springwells; they had chills, brown tongue, and gurgling upon pressure in the ileo-cæcal region, with tenderness. This does not occur in intermittent fever; there was, no doubt, frequently, difficulty in diagnosis. During the war it was quite fatal in the army.

Dr. Harlow was afraid the large doses of quinine mentioned might produce permanent deafness; he had observed this in Illinois in 1847. This might be on account of giving the quinine when the fever was high. He believed that quinine acted much more efficjently when given in combination with other medicines in moderate and repeated doses. He had used with much satisfaction the following:—

℞	Quiniæ sulph,	grs. xxx.	
	Ol. pip. nig,	gtt. xxiv.	
	Acid sulph. aromat.,	ʒj.	
	Syr. simplicis,	℥iv.	
	Alcoholi,	℥j.	M.

S. Tablespoonful every hour until half the quantity had been used; afterwards, every other hour.

If the chills recur, repeat in same or less quantity; milk punch to be used freely. He used aconite, or verat. viride, or gelseminum, for the fever, and did not believe in too general stimulation with alcoholic stimulants. At later stage, and in some cases, diffusible stimulants, as ammon. carb. and brandy, are necessary.

Dr. E. Smith did not believe that xx grs. of quinine would, if given at one time, produce permanent deafness in any case where the ears were at the time healthy.

Dr. Shurley thought it necessary to distinguish accurately between the typho-malarial and typhoid fevers. He had seen cases of intermittents run into continued fever; it was a question with many whether there was a distinct disease to be distinguished as typho-malarial fever; if there was such a disease there was great difficulty in distinguishing it from other forms of fever not well defined. He considered those cases hitherto described rather as unbroken remittents. In these cases diarrhœa would be noticed usually, as well as a sense of weight in the hypogastrium.

Dr. McKeown believed quinine to be an antidote in these fevers in large doses, and was of the opinion that the large doses were more needed and were better borne in the South, where the climate produced a relaxation of the system.

Dr. Koerper, U. S., was not in favor of the antiphlogistic treatment, but believed in large doses of quinine. He had taken at the South lx grs. in one dose, twice within twelve hours, for pernicious intermittent, or congestive chills.

Dr. Heaton was decidedly of the opinion that this form of fever was essentially different from ordinary malarial fevers, possessing marked characteristics of its own. He had seen cases of this nature at the copper mines in Lake Superior. They were ushered in by distinct chills followed by remittent fever. After a time diarrhœa set in, with typhoid symptoms. There was great disturbance of the secretions, and medicines, if used promptly at this stage, might prevent the typhoid tendency. Quinine will, if given early, either be beneficial, or be hurtful; if not producing a convalescence, it will cause tympanitis and abdominal tenderness. Pulv. Dover c. hyd. chl. mite are to be used early, or the C. C. P. (U. S. P.) Sustaining diet should be early resorted to. If case progresses, I use ammon. carb. when there is much irritation of the chest; and in pneumonia resort to alcoholic stimuli freely.

Dr. Lyster was of the opinion that this fever was essentially a malarial fever, modified usually by the surroundings of the patient. It partook sufficiently of both typhoid and intermittent fever to entitle it to a special designation. The pathognomonic lesions were similar to but not identical with those found in true enteric fever. In these cases the characteristic lesion is the enlargement of the solitary follicles of the small intestines, while that in the enteric or typhoid fever of Louis, is enlarge-

ment and ulceration of Peyer's patches. In both of these fevers there may be extensive congestion of the mucous membrane of the small intestines, particularly the lower portion, and also inflammation of the mucous membrane, and ulceration of the large bowel. He was in favor of mercurials, particularly hy. c. creta or mas. pil. hyd. at first, and in some instances a return to them later in the fever. He had used quinine in full antiperiodic quantity early in the disease, and would not resort to it again in the same case, unless as a tonic during convalescence. A large cantharidal vesicant over the umbilical region should be used early in the fever, and will generally prove effective in removing the abdominal pain. He had had the disease himself, in the Army of the Potomac, in Virginia, in 1861.—*Comp. Med. Sciences.*

Gonorrhœa—Local Remedies.

Gonorrhœa may be treated successfully by local remedies only, and more successfully than by medicines taken internally; the injection used must be weak enough and often enough used. A grain of sulphate of zinc to an ounce of water, used six or eight times a day, may be commenced with, and increased to two grains if necessary. If necessary, sulph. of copper may be tried instead, in the same strength.—(Dr. P. Foster)—*Med. Times and Gazette.—Braithwaite.*

Cremation: The Treatment of the Body After Death. A new work by Sir Henry Thompson.

The subject of burning the body after death, and burying the ashes, is attracting much attention in many parts of Europe. Societies have been formed with a sufficient amount of capital to make the necessary experiments and procure suitable apparatus. In Zurich, at least 400 persons have joined the society. —*Ibid.*

Treatment of Typhoid Fever by Galvanization of the Great Sympathetic.

Dr. Glax, in thirty cases of typhoid fever entrusted to his care, proceeded in the following manner to reduce the temperature when it increased above 102.2° F. He placed the positive pole of the constant current battery (20 elements) over the third

cervical vertebra and the negative pole on the superior cervical ganglion. In almost all the cases a remarkable reduction of temperature followed at the end of a few hours. M. Glax believes that we have here a means, convenient and efficacious, of diminishing the temperature and consequently the fever in febrile diseases.—*Pester Med. Clin. Presse.—The Clinic.*

Klemm on the Curability of True Croup without Emetics.

Dr. Klemm narrates (*Jahrbuch für Kinderheilkunde*, vol. vi.) a case of croup which was treated by packing in the cold wet sheet. The packing was repeated every three or four hours for the first day or two. The child recovered. Three other cases, similarly treated with the same result, are alluded to. Klemm deems the sweating which accompanies the packing to be not less beneficial than the abstraction of heat. It is important that the treatment should be begun early in the disease, before the false membrane has been abundantly formed.—*The London Med. Record.*

Cause of Antipathy to Quackery.

It is generally imagined by the public that the antipathy of the profession to quackery originates in a feeling of self-interest, and. that quacks take the bread from medical men. We more than doubt if this is true. If the faculty loses and the quackery gains a particular case, that is amply compensated by the ill-health which quackery produces in thousands, and the disposition to fly to physic which it generates in millions. On the whole, the profession probably gains by quackery—certainly its loss must be very trivial. A feeling of self-interest can sway the profession very little either way, and its antipathy to quackery must be sought on other grounds.

We should say that our aversion to quackery takes its rise in a natural feeling of disgust at a barefaced system of humbug. Unless men's minds are warped by the strongest motives towards wrong, they revolt at witnessing it. We see a knot of rascals fleecing and injuring the public by the most dishonest and scandalous arts. We naturally evince contempt and indignation towards the miscreants.—*Canada Lancet.—The Doctor.*

Editorial.

The Philadelphia *Medical Times*, June 27, 1874, on the American Medical Association says: "A loss of national character to the Association is almost a necessary result of the appointment year after year of sessions *in the far West.*"

How could the Association go to an Eastern city without an *invitation!* Indeed if we remember rightly Dr. J. Marion Sims, representing *New York* in the committee moved to accept the invitation to go to Louisville next year. St. Louis, Detroit, and Louisville in the far West!

The reader, meeting this paragraph without having first noticed *the date*, might have inferred it to have been written *forty years ago.* We respectfully suggest to our esteemed contemporary to visit the far west next May, and come by Detroit and St. Louis to Louisville. Now that we have a *bridge*, one of the delays and dangers of traveling "in the far West" is overcome, so that the "truly representative" man may find it safe to "swing around this circle" and return with corrected notions of geography, if not advanced in medical lore.

"For the sake of our foreign contemporaries we want to deny emphatically that the convocation was in any true sense representative of the American profession," *i. e.*, the Detroit meeting failed so signally to do anything creditable, or did what was so discreditable, the *Times* fears for the reputation abroad of the truly representative men of the profession, (whose abode is in the Atlantic cities, and who did not attend the meeting), that it makes haste to notify its "foreign contemporaries" that they should not be held responsible for the shortcomings of this "redoubtable organization." "The leading minds in the Eastern cities" for so timely and valued service, cannot fail to make prompt and appreciative acknowledgment to the *Times.*

That "the principal medical schools, periodicals, teachers and authors, abide in the Atlantic cities" we had supposed was not unknown to "foreign contemporaries;" still the time may not be far distant when the less said about it the better. Leaving

out of sight this matter (referring to Dr. Sayer's measurements) the Detroit gathering does not appear to have yielded any scientific fruits whatever. *The Massachusetts State Medical Society* doubtless was composed of "representative men!" What facts in nature were uncovered during that meeting, or any other meeting of medical men in this country, or abroad? When a scientific discovery is made, it travels with lightning speed the world over! The journals catch it up and spread it broadcast. No one thinks of waiting for the meeting of the American, British, or any other Association before publishing a newly discovered fact in science.

If, as a result of organized effort, fruits of discovery are produced *during the year* and go directly to the profession through the medical press, and thence come up in the various sections at the annual meeting for discussion, as to their bearing on previously existing theories or methods of practice, effecting readjustment of opinions to conform to recently discovered facts; somewhat in this way, we apprehend *fruits* of organization are to be realized. But this passes for nothing in the Detroit meeting for-want of a due proportion of "representative men who are not to be driven into medical societies for the purpose of going to the American Medical Association for when every facility was offered, our best men with few exceptions all stayed at home."

No organization can afford to place a premium on staying away from its assemblies by appointing men to office who are not in attendance.

The simple question is whether organized efforts are more fruitful than individual efforts. At present the verdict of the civilized world is for organization; hence, at present, to mingle with, and assist in perfecting the organizations which may be productive of the best results seems a plain duty.

There are retiring, modest men; students, who seek no preferment, who enjoy most that retirement which affords them the best opportunity to prosecute their speciality, or original investigations in science, we confess profound respect for this class, and would gladly entice them to our public gatherings, believing it not hurtful to them, and helpful to the progress of science, for them to take part in the general assemblies of the profession; and we do not learn that these men object to restric-

ting representation to members of local societies, attendance upon which may be regular or occasional, at the option of each member; hence the way to the national assembly through the local society need not be onerous or objectionable.

NEW MEDICAL JOURNALS.

A new weekly medical journal. We have the second number of the "*American Medical Weekly*," edited and published by E. S. Gaillard, M. D., favorably known to the profession as the editor of the *Richmond and Louisville Medical Journal*—"verily extremes meet." From examination of this number, we believe the Journal better in *substance* than *form*, which however may prove too good for the price ($2 a year). We hope the "*American Weekly*" will receive that prompt *material aid* from the profession the new enterprize merits.

PROPOSED ARCHIVES OF DERMATOLOGY.

Under the editorial management of Dr. L. Duncan Bulkley and issued under the auspices of the New York Dermatological Society, quarterly, 96 octavo pages. To appear on the first of October next. "It is designed to present in this publication original articles, transactions of the society, clinical reports and a thorough digest of the current literature of dermatology and venereal diseases;" and the profession cannot ask better assurance that what is proposed will be faithfully and ably carried out than they have in the name of the editor; also that the publishing will be promptly and neatly executed G. P. Putnam & Sons are sufficient guarantee. Subscription $3 a year, single number $1. Fourth Avenue and Twenty-third Street, N. Y.

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a maximum and minimum thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

JUNE, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	68.0	86.0	18	67.0	93.0
2	64.0	90.0	19	60.5	94.0
3	67.5	94.0	20	71.0	96.0
4	71.5	97.0	21	70.0	97.0
5	70.0	95.0	22	71.0	99.0
6	73.0	97.5	23	76.0	100.0
7	76.5	98.5	24	76.0	99.0
8	75.0	99.0	25	77.5	96.5
9	75.5	99.0	26	76.5	101.0
10	71.0	97.0	27	79.5	101.0
11	67.5	73.0	28	79.5	103.0
12	55.0	75.0	29	70.0	84.5
13	58.0	78.5	30	67.5	90.0
14	62.0	90.0			
15	68.0	81.0			
16	65.0	83.0	Means	70.1	92.5
17	65.5	89.0	Monthly Mean 81.3		

Quantity of rain: 2.00 inches.

Mortality Report.—City of St. Louis.

FROM JULY 4, 1874, TO JULY 25, 1874, INCLUS.

Abscess of Brain	1	Cholera Infantum	50	" Remittent	2	Murder	2
" Hepatic	1	" morbus	17	" Typhoid	7	Mylitis	1
Accident Drowning	12	" Asiatic	1	" Typhus	2	Old Age	8
" Pistol Shot	1	Cerebritis	5	" Puerperal	3	Premature Birth	20
" not stated	5	Consumption	35	Gastritis	1	Pneumonia	9
Alcoholism	2	Convulsions	75	Gastro Enteritis	7	Paralysis	4
Anemia	1	Croup	19	Heart, Dis. not Sp.	1	Pyemia	1
Asthenia	2	Cystitis	1	" Valv. Dis	2	Pertusis	20
Atelactasis	1	Cyanosis	2	" Paralysis	1	Sunstroke	13
Apoplexy	8	Catarrh of Bowels	1	Hydrocephalus	13	Septicæmia	1
Atrophia	1	Chorea	1	Hemorrhage, Pulm.	1	Suicide, Arsenic	1
Arthrctis	1	Collapse	1	Hyperemia, cerebral	1	" Morphia	2
Brain, cong. of	44	Debility	23	" stomach	1	" Drowning	2
" infim. of	2	Dentition	7	" idiop.	1	" Hanging	2
" soft'g of	6	Diarrhœa	19	Inanition	8	Summer Complaint	174
" effusion on	1	Dropsy	6	Ilio-Colitis	1	Trismus	14
" concussion	1	Dysentery	13	Jaundice	2	Uremia	2
Bronchitis	5	Dipsomania	1	Lung, Cong. of	2	Varioloid	1
Brightts Disease	1	Eclampsia	8	Laryngitis	2	Variola	39
Cancer not defined	1	Enteritis	8	Marasmus	38		
" uterus	2	Entero-Colitis	3	Meningitis	69	Total	895
" Rectum	1	Fever, Congestive	7	Meningitis Cer. Sp.	10	Stillborn	52
Calculus vesic	1	" Intermittent	1	Measles	2	Under 5 years	683
Cong. of stomach	1	" Scarlet	9	Morbus Maculosis	1		

THE SAINT LOUIS

Medical and Surgical Journal.

SEPTEMBER, 1874.

Original Communications.

A REPLY BY JOHN T. HODGEN, M. D., TO DR. R. W. ERWIN'S "CRITICISM UPON REMARKS MADE BEFORE THE ST. LOUIS MEDICAL SOCIETY, BY DR. HODGEN."

After quoting my remarks in part, the Doctor says: "I have quoted at considerable length, but the statements are so untenable that no excuse is necessary."

The points the Doctor makes are these:—and states (in language which I will repeat) under six different heads, the objectionable points to my position. He charges me with—

First, "Carbonic acid is formed in the lungs." Yes, carbonic acid is formed in the *lungs*,* but I did not say so, and am not so reported in the article from which the Doctor quotes. If there be any advantage in discussing medical subjects, no lover of the profession will claim that the best good can result from mis-

* The Italics are mine.

representations. A fair, open criticism is always proper and profitable.

I did say, "the oxygen when it reaches the *blood*, and not *lungs*, combines with carbon and forms carbonic acid." I deny the first charge, but will defend the position, *i. e.*, "carbonic acid is formed in the lungs."

Yes, by the decomposition of the carbonates of soda and potash, and the formation of the pneumates of soda and potash, setting the carbonic acid free; and yet the Doctor does not quite reach the full extent to which carbonic acid gas is formed in the lungs.

"Oxidation of the respiratory food appears to take place in the blood partly in the lungs."—(Marshall's Physiology, page 841.)

Besides this, carbonic acid is formed in the lungs in the nutritive change that occurs in the lung-tissue. When I say carbonic acid is formed in the lungs, it is not legitimate to conclude that I also say it is not formed elsewhere; and when Lavoisier's doctrine was "exploded long ago," the explosion consisted in showing that carbonic acid was found elsewhere as well as in the lungs.

Second, "It is formed by the oxidation of carbon." Certainly there is no other way in which it can be FORMED but by the oxidation of carbon—carbonic acid is oxidized carbon, and nothing else. If it is set free from a compound in which it already exists, it was none the less *formed* by the oxidation of carbon, not in the act of being set free, but when it was made carbonic acid. "The nature of the substances oxidized must remain at present in obscurity. That they contain *carbon* is, however, *certain*. Some of this united with oxygen forms THE carbonic acid given off in respiration."—(See Marshall's Physiology, page 841.)

Third, "Nitrogen is very important in aiding the lungs to get rid of the carbonic acid." Certainly it is, and that is the precise use of nitrogen as a component of the air. The blood comes to the lungs already charged with carbonic acid. In passing through the pulmonary capillaries, it is exposed to the air (oxygen 21, nitrogen 79), in the air vesicles. An interchange of gases follows according to the law of diffusion of gases (see Dalton's physiology, page 228); and the law of diffusion is, that they mix with each other inversely to the square roots of their densities.

Now, atmospheric air being taken as a unit, oxygen has a density of 1.1057, nitrogen 0.972, hydrogen 0.0695, carbonic acid gas 1.524. Nitrogen then will diffuse more rapidly than oxygen, and hydrogen more rapidly than nitrogen—and hydrogen being the lightest gas, will rob the blood of its carbonic acid more rapidly than any other. Now, as the atmospheric air is $\frac{4}{5}$ nitrogen, and diffusion is the method by which carbonic acid is removed from the lungs, $\frac{4}{5}$ of the labor of removing it must be performed by the nitrogen.

Fourth, "The inhalation of oxygen renders theblood rapidly venous; hence concludes practically that a person poisoned by carbonic acid should, under no circumstance, have oxygen." If the Doctor had added "in larger proportion than is contained in the atmosphere," he would have completed the quotation, and this would have been just as I expressed it. Hence I would say that a person poisoned by carbonic acid should be allowed to breathe a gas with which carbonic acid will diffuse more rapidly than with oxygen. "If he could be forced to breathe hydrogen, the blood would be sooner relieved of its load of poison in accordance with

Graham's law of diffusion of gases."—(See report of my remarks.)

The introduction of oxygen is not desirable because it furnishes one of the elements necessary for the formation of the poison, of which the patient has already too much.

Fifth, "Hydrogen is good in such cases of poisoning, on account of the tendency to diffusion of the two gases;" for hydrogen stands to atmospheric air, as a displacer of carbonic acid, as 407 to 113—and we wish to rid the body of the poison as rapidly as possible.

Sixth, "Carbonate of ammonia, or spirits of ammonia, should not be given to feeble patients, since they increase the carbonic acid in the blood," by rendering the blood abnormally alkaline, and thus increasing its affinity for oxygen.

This is correct practice in patients whose tissues and blood have been so disintegrated by the constant nutritive changes continued through protracted diseases, so that they are reduced to the last condition of existence, when no farther waste can occur without death.

Increase the capacity of the blood to carry oxygen, and you hasten the waste and hasten death—"sure to see crape on the door next day." Such patients require nutritious and easily assimilable food; they need repair, not waste.

I cannot ignore the cases referred to by the Doctor in which patients, laboring under suffocation from coal gas, were brought to the Boston City Hospital, and are reported restored by the inhalation of pure oxygen. Now the Doctor states, page 399, "the greater the accumulation of carbonic acid and the want of oxygen, the more rapid will be the respirations, and *vice versa*."

If this were true, we would need neither pure oxygen nor pure hydrogen; but it is not true; the respirations are not more rapid except in the very beginning; after a time the irritability of the ganglionic centers is so depressed that they will not respond to the stimulus of carbonic acid in the blood, and it is quite certain, without having a detailed report of the cures, that the oxygen which the patients were allowed to inhale, was not kept constantly to the respiratory apertures—but a few breaths were taken, and then atmospheric air was admitted by which a more rapid loss of carbonic acid gas was permitted through the nitrogen of the air; and whilst the patient would appear brighter from the immediately stimulating effects of the oxygen thus introduced, it is quite certain that had it been continued, without permitting the respiration of the atmosphere, that the patients would have died—and it is a well established fact that the oxygen of the atmosphere may be greatly increased without interfering materially with its activity as an agent for carrying off carbonic acid gas; but when pure and long continued, it must prove fatal as indicated by reference to actual experiment.

Besides these, cases were *brought into* the Hospital, indicating that some time elapsed between the time the patients were removed from the coal gas and the administration of oxygen, during which time they were breathing atmospheric air. The Doctor farther refers to a case reported by Dr. Jerome C. Smith, in which the child had measles, and suffered from congestion of the lungs. "Oxygen was *used* and the child recovered." But did it take nothing else? would it not have recovered without the oxygen?

The case of poisoning by 200 grains of chloral reported by Dr. Smith, recovered after taking oxygen. I may report that my friend Dr. Outten, of this city, had a case of a girl poisoned by 480 grains of chloral, who did *not* take oxygen and recovered, and nothing of the kind was taken "to bridge over the chasm."

Dr. Peaslee's case of "a patient suffering with disease of the heart, * * had a sudden attack of dyspnœa * * with pulmonary œdema * * oxygen was given * * the patient recovered." If the breathing space be so limited that a sufficient amount of oxygen cannot be admitted to the blood, the proper thing to be done is to furnish the gas in such concentrated condition, as to supply the amount actually required; but this must be done without cutting off the facilities for removing the carbonic acid thus formed in increased quantities; and we are informed that "five gallons were administered in 5 or 10 minutes—this was at 10 A. M. * * The oxygen would relieve the most urgent symptoms, and then she would relapse. * * The whole day was occupied in keeping her alive. * * I do not believe that she could have lived two hours without oxygen. * *." It is clear from this description that the oxygen was given, allowing the patient most of the time to breathe atmosphere, thus conforming to the required conditions, and affording a most important aid to the suffering patient by furnishing oxygen without which she could not live.

These cases prove nothing in the matter under consideration. It is always proper to state the remedy given and the result, but not always true that the result was determined by the treatment. I will now put the Doctor on the defensive.

If the Doctor had considered Dr. Boislinière's remarks, *i. e.*, "he gave *spirits* of ammonia with the hope that it might combine with the carbonic acid of the blood, and form carbonate of ammonia, and in this form be eliminated," he would hardly have gone into the details of a calculation to show how much carbonic acid would result from the administration of 5 grains of *carbonate* (not spirits) of ammonia every 3 hours, and to show that $\frac{1}{500}$ of a grain of carbonic acid exhaled at each expiration would not seriously embarrass any patient. Read the report, and you will find that Dr. Hodgen "could not concur in Dr. Boisliniere's explanation of the method by which carbonic acid was eliminated from the blood by giving *spirits* of ammonia. In the first place the hartshorn could absorb very little carbonic acid, and then, instead of eliminating it, it would have just the opposite effect; it would promote the formation of carbonic acid in the blood. The presence of spirits of ammonia would render the blood abnormally alkaline. The alkaline condition of the blood is essential to its being a transporter of oxygen." The Doctor copied a part of this quotation, and must have known that I opposed Dr. Boislinière's explanation, and yet has labored to disprove a doctrine I did not avow.

I copy from the "criticism." "According to the Doctor's theory, it would be bad practice to allow one in a state of syncope to inhale hartshorn"—not at all. Does the Doctor know that in syncope the blood is not, and does not rapidly become loaded with carbonic acid, because disintegrating changes are suspended or very slowly going on. Hartshorn in such a case acts as a local stimulant, and hastens the action of the organs of respiration and circulation.

I copy again from the Doctor "as regards the forced use of hydrogen gas, in poisoning by carbonic acid. Little need be said after stating that hydrogen gas is not a supporter of life."

Let me repeat that a patient asphyxiated is suffering from an accumulation of carbonic acid in the blood; that the thing to be done is to get the carbonic acid gas out of the blood; that hydrogen displaces carbonic acid more than three times as rapidly as atmospheric air. "Marchand found that frogs would live for from half an hour to an hour in pure hydrogen, and that during that time, they exhaled even more carbonic acid than in atmospheric air, owing probably to the superior displacing power of hydrogen for carbonic acid."

I wish now to place in strong contrast two passages found in the Doctor's criticism. On pages 396 and 397, I find No. 1. It is, "There are few things whose reactions in the stomach can be predicted with some degree of certainty; but we all know that the physical economy is everywhere stored with forces to *modify change*, *hasten* or *correct* the *chemical action* of a drug." Passage No. 2 is found on page 401, and reads: "Were it to have the effect the Doctor attributes to it, no such testimony could be adduced, since *chemical laws are unvarying*, and the conditions *must ever give rise* to the *same results*." At one time, it suits his purpose to abide by *unvarying* chemical laws; and again he finds it convenient to have the *physical economy stored* with forces to *modify change*, *hasten* or *arrest* the *chemical action*.

On page 399 of the "criticism," I find: "The amount of oxygen absorbed is elected by the want of

the system. *Arterialize the blood completely* and *breathing* will *stop* till the carbonic acid is produced, and the frequency and length of the act will be governed by the amount of oxygen needed." "*More than the needful* amount *cannot* be *forced into* the *blood* unless by a bellows to continue respiration against the wants or call of the system."

"If the blood were wholly oxygenated in the veins, there would be no respiration."

Now see Marshall's Physiology, 1868, page 848: "Pure oxygen is highly injurious; the vital functions are stimulated as by a force; the *pulse* and *respiration* are *increased* in frequency, after an hour insensibility gradually comes on, coma then ensues, and death occurs in from 6 to 12 hours." Now it does not appear that to "arterialize the blood completely," "the breathing will stop;" but it does appear that more than the needful amount of oxygen may be received by the blood.—(See Draper's Physiology, page 169.)

"In the respiration of protoxide of nitrogen (laughing gas), a gas which is an energetic supporter of combustion and acting more powerfully on the animal system when respired than even oxygen itself, (on account of its ready condensibility by pressure or by membranes and solubility in water), the circulation is greatly quickened at first, and a state of exhilaration ensues; but this is soon followed by a condition of depression or even of coma, *for* the *quantity* of *carbonic acid* produced in the system is now so great that the lungs are wholly inadequate to effect its removal, and all the symptoms of poisoning by carbonic acid come on. Zimmerman found that a rabbit exhaled 12½ grains of carbonic acid per hour, when breathing air, but that

the quantity rose at once to 20 grains per hour, when it was caused to breathe protoxide of nitrogen." It is now clear that a patient may receive more than the proper amount of oxygen, notwithstanding the remarkable guards connected with the reflect centers of respiration. It is certainly true that too much oxygen will not be received when breathing air, because the diffusive power of the compound with carbonic acid gas is sufficient to carry it off.

The Doctor seems so fully satisfied that oxygen is the sole agent required in the air respired, that he contents himself with saying: "Little need be said after stating that hydrogen gas is not a supporter of life;" yet it is true that hydrogen may very well replace nitrogen in a mixture for supporting life.

On page 394, the Doctor says: "Take blood from a vein and put it in pure oxygen, and it rapidly loses its purple color FROM the escape of carbonic acid, and becomes bright-red from the absorption of oxygen."

Professor Stokes determined that the difference in color of venous and arterial blood was due not to the presence or absence of carbonic acid, but to the state of oxidation of the (cruorin) coloring matter of the corpuscles; hence it appears that the dark color of venous blood is due to the absence of the proper amount of oxygen to give it the requisite degree of oxidation, on which depends the bright color of arterial blood.—(See Marshall's Physiology, page 830.)

Then if venous blood be agitated with oxygen, the oxygen unites with the cruorin, and gives it a bright color; and if agitated with carbonic acid, the oxygen readily mixes with carbonic acid, thus leaving the cruorin deficient in the oxygen, and permits the dark color of cruorin, existing in a less degree, oxidized.

Again, arterial cannot be distinguished from venous blood by the color, since the venous blood returning from rapidly secreting glands is bright. Blood taken from the veins and arteries in hot climates is dark, so also during profound sleep, and in hybernating animals.

STRICTURE OF THE URETHRA BY THE ELECTRICAL TREATMENT.

By A. J. Steele, M. D., St. Louis.

The attention of the profession has been of late especially called, and very justly, to a comparatively new method of treating strictures of the urethra, namely, by the use of galvanism. The ease of the application, the slight inconvenience to the patient, and the rapidity and permanence of the cure, make it really deserving of a prominent place among the surgical advances of the day. As my own experience corroborates the favorable reports that have been made in regard to it, I cheerfully add testimony in its favor.

The form of electricity used is that of the continuous current, and tension is sought rather than quantity, so that many small cups are demanded rather than a few large ones. I have usually found that from ten to fourteen, pairs of the zinc-carbon elements, have generated sufficient electricity for the purpose. The negative electrode is a metallic point pressed gently against the stricture; the positive electrode a moist sponge placed

anywhere upon the surface of the body, though I have believed the action to be more energetic when it has been placed near the negative pole, as to the iliac region or thigh, rather than remotely, as to the leg or palm of the hand.

A metallic oval tip, connected to a wire passing through a gum catheter, is the form of bougie recommended, and which I have used, but I now prefer the ordinary conical steel bougie. A set, including all sizes, makes the convenience of application greater, and being silver or nickel-plated prevents oxidation. The instrument is insulated to within an inch of the point by the application of a coating of collodion; Squibbs' flexible, I find well adapted for the purpose.* A *sene-fine* affords an eligible method of connecting the wire to the handle—not coated—of the bougie.

Two factors enter into the thoroughness and rapidity with which a cure can be effected, viz., the electromotive force used, and the character of the structure to be acted upon. The softer, the more moist and vascular the stricture, the more readily will it be decomposed and absorbed; whereas extremely hard tissue will demand increased time and greater tension, and possibly, also, increased quantity. Though in regard to the latter I am prepared to believe that mistakes have been made, and failures recorded, from its injudicious use. Quantity gives a calorific effect, with rapid destruction of tissue, as in the case of the galvanic cautery, the scar resulting therefrom would be highly prejudicial in the instance of a stricture. It is rather the electrolytic action that is desirable, whereby the organic structure is disintegrated,

* Ether will dissolve it off when desired.

decomposed. The negative pole attracts hydrogen, and gives an alkaline re-action when acting upon moist animal tissues, chemically decomposing—dissolving the part, and doubtless, too, by its stimulant action, inducing absorption.

The situation and character of the stricture having been accurately determined, a bougie, prepared as above, and of a few sizes greater in caliber than the stricture, is introduced down to the obstruction and connected by its free end to the negative wire. The sponge, moistened with salt water, placed externally on the skin—the thigh or iliac region being convenient—is attached to the positive wire. It is best to commence with a single pair, and gradually increase the number of cups, as thereby the parts are more tolerant—a low power gradually benumbing, a high power unpleasantly shocking. If the sponge is shifted without being removed from the surface, the pricking or burning sensation ordinarily experienced will be lessened. The sensations of the patient will, to some extent, determine how high a power may be used; from ten to fourteen pairs, as before remarked, may be all-sufficient, if the battery is working well. The character of the stricture, also, necessarily enters into this question. A few moments' gentle pressure and the instrument is found to pass gradually on. Once well entered, the bougie is retained *in situ*, the action being continued for a few moments longer. The current may now be gradually diminished, and the wire disconnected, the instrument retained, and, if gentle force will accomplish it, pushed on into the bladder. If not interdicted by local inflammation, the operation may be repeated in a week or fortnight's time, followed up by the careful and judicious use of bougies. In some cases one appli-

cation is sufficient; in others several seances are required, depending on the character of the stricture.

Results have been most satisfactory. Strictures, accompanied with incontinence of urine, gluty discharge, irritability of bladder, painful micturition, etc., being entirely removed and rapidly cured.

Danger in this operation is reduced to a shadow, if too great quantity and too prolonged application are avoided. Care, also, in the after use of bougies is to be regarded.

While there is much of merit in the old ways, let us not be too chary in trying the new

Correspondence.

Editors JOURNAL:

In reply to recent inquiries concerning the medical properties of the mineral water flowing from the artesian well at Belcher's Sugar Refinery, corner Main and O'Fallon streets, in this city, and commonly known as "Belcher's Water," I give the following analysis of the water, made by Prof. A. Litton soon after the well was completed. The well is 2,199 feet deep, and was completed in 1854. About seven gallons of water flow out per minute:

ANALYSIS OF BELCHER'S WATER.

	In 1000 parts.	In 1 lb. (Avord.)
Carbonate of protoxide of iron, - -	.0094	.0658 gr.
" " lime, - - - - -	.1898	1.3286 "
" " magnesia, - - - -	.0182	.1274 "
Chloride of calcium, - - - - -	.4964	3.4748 "
" " magnesium, - - - -	.6846	4.7922 "

	In 1000 parts.	In 1 lb. (Avord.)
Chloride of potassium,	.1608	1.1252 "
" " sodium,	6.2752	43.8264 "
Sulphate of lime,	.8156	5.7092 "
Silica,	.0024	.0168 "
Sulphuretted hydrogen,	.0141	.0984 "
Free carbonic acid,	.0552	.3864 "

Dr. J. R. Washington, of this city, gave me the following facts. He had used it daily for twenty years. The quality of the water has not changed materially since the above analysis was made. He drinks from two to three pints before breakfast, every morning, throughout the year. He recommends the water to patients suffering from obstinate constipation, hemorrhoids, flatulent dyspepsia or nervous headache. Said he: "Belcher's water cures obstinate constipation and piles, when persevered in for months. It keeps the contents of the lower bowel in a liquid condition, and the hemorrhoids soon disappear. It effectually cured me of attacks of nervous headache, from which I had suffered severely from my boyhood. I am acquainted with many other citizens of St. Louis who have been cured of nervous headache by it as well as myself. It is a decided cathartic, if taken very freely on an empty stomach, but not if taken after eating. It is an excellent stomachic. Persons suffering from flatulent dyspepsia resort to it by scores, and soon find complete relief. It is also diuretic. It does not contain sufficient iron to be called a tonic. It is a decided appetizer, however. Its virtues as a bath have not been tested, but I think it would be excellent. Patients suffering from diseases of the eyelids, *e. g.*, tinea tarsi, etc., by repeated ablutions soon recover. I am not certain that it possesses antirheumatic properties, though such properties are claimed for it by those who have used it for rheumatism. I could not do without it."

CLAYTON KEITH, M. D.

850 North Fourth street.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

St. Louis, April 18, 1874.

Dr. Gregory reported a case of anchylosis of the left femur, at right angles with the bones of the pelvis, in a female aged twenty years, upon whom he proposed to operate at an early day. Patient can walk on both feet, and stands as if both feet were touching the ground—her dress concealing the deformity. The pelvis had been tilted. She lies on the tuberosities of the ischia. The most extraordinary case of hip deformity that ever came under his observation. He proposes to operate by subcutaneous section, dividing the neck of the femur, etc., and in this way improve the condition of the pelvis. He does not urge an operation, however. He exhibited the instruments with which he intended to operate, viz., two narrow-bladed, straight bistouries and a small saw. Some of the members expressed a doubt as to the possibility of such an operation, subcutaneously; he reiterated the same statement, and invited them to be present at the operation.

Dr. Hodgen reported a case of spina bifida, in a child four months old, on which he had operated that day. The tumor was in the dorsal region. Had already been tapped three times. The opening in the vertebra was three-quarters of an inch long. After evacuating the fluid, he applied raw cotton and a plaster of Paris bandage, with a view to prevent its reaccumulation. If he can succeed in keeping the fluid out of it, by pressing the ends of the vertebræ together, he hopes to *relieve* his patient; he does not expect to *cure* his patient. He will keep this plaster of Paris compress on the child for six or eight weeks, and then remove it—when he may have to evacuate a less amount of fluid—and re-apply the plaster of Paris compress bandage. Instead of puncturing the tumor at the top, or on the side, he made the puncture an inch from the tumor, in the normal tissue, and evacuated the fluid *slowly*, by means of a small trocar and canula. The child manifested no pain from the operation. The tumor,

of course, was due to the tardy development of the osseous system.

He related a similar case which recovered after tapping several times. A point of more than ordinary interest in these cases is this: It is the physician's duty to make a fair and frank statement beforehand to the child's parents of the probable danger of such an operation, and of the improbability of complete recovery. Give an honest and candid opinion of the case to the parents, and if you get their consent, then operate, and not before. Never insist upon performing an operation—rather be tardy. If any urging has to be done, let the friends of the patient do it.

Dr. Hodgen remarked that it was the practice of the late Prof. Brainard to puncture these tumors, remove part of the fluid, and inject tr. iodine. In Dr. Brainard's hands this practice proved successful in several cases. Dr. Hodgen was not sure that he understood just how tr. iodine acts in such cases. It was formerly supposed that tr. iodine injected into hydroceles, and into cysts generally, acted as an absorbent; his present opinion, however, is that it acts as an irritant in such cases.

Dr. Montgomery reported a similar case occurring in a child six months old. He punctured the cyst with his lancet, evacuated the fluid, applied raw cotton, a leather compress and a bandage, and the child recovered perfectly. He considered the practice of puncturing these tumors or cysts well worth the trying.

Dr. McPheeters reported a similar case in a child ten years old. He sent the child to Dr. Brainard, who proposed evacuating the fluid and injecting tr. iodine. The operation was deferred on account of the warm weather, and before cool weather returned Dr. Brainard died of cholera. The tumor, in this case, was as large as the head of a child eight or ten years old. The walls of the cyst were as thin as tissue paper, and the tumor was gradually increasing in size. He questioned the propriety of an operation at that age.

Dr. Bryson inquired of Dr. Hodgen whether or not pressure had been tried in the case reported; if so, what were its effects? Did it produce any perceptible absorption or diminution in the size of the tumor? Dr. Hodgen had not tried pressure.

Dr. Kennard thought the practice of puncturing cysts, in cases

of spina bifida, dangerous, especially for the general practitioner to attempt. He reported a fatal case in which the tumor was punctured and the fluid evacuated.

Dr. Hodgen next presented a specimen from the peritoneum of an ox. It was the product of a former inflammation. The ox had doubtless suffered from peritonitis. The specimen probably first existed in a condition similar to that of fibroid tumor—*e. g.*, similar to a fibroid of the uterus; it may also have had a pedicle, which pedicle became gradually narrower and narrower, until it was finally detached and passed off *per rectum*. The tumor maintained its vitality during the narrowing of the pedicle, there being constantly a tendency to undergo fatty degeneration—as is always true of a starving tissue.

Dr. Keith next read a brief paper on Inflammation. He said, inflammation is beyond comparison the most important phenomenon connected with disease. It forms an essential part of a large majority of the serious diseases which we are called upon to treat, either as antecedent, accompaniment or sequella; and, in most instances, it constitutes the chief source of danger. While the physician is so often called upon to combat it as the most active and violent of the phenomena connected with disease, it is not unfrequently sought for, and even created, by the surgeon as a curative agent. He adopted the definition given by Celsus, rather as a description of inflammation, viz., "a peculiar morbid condition, usually characterized by the four symptoms—increased redness, heat, pain and swelling." The absence, however, of one or more symptoms is not incompatible with the existence of inflammation—*e. g.*, pain is sometimes absent; again, heat and redness are often wanting.

The first symptom, redness, is due to an unusual amount of blood in the capillaries, and doubtless, also, to the passage of the blood unchanged from the arteries to the veins, in consequence of the tissues of the inflamed part being unable to appropriate the great abundance of oxygen supplied to them.

The second symptom, increased temperature, is readily rendered evident by the thermometer. The experiments of Sir John Hunter, however, proved that the heat of the inflamed part never exceeds the temperature of the blood in the heart. Increase heat is due to a super-oxidation of the tissues affected,

resulting in their decomposition, and not due to increased temperature of the blood in the part, as was formerly supposed.

The third symptom, pain, is due to some unexplained modification in the state of the nerves in the part. Pressure on a nerve will aggravate the pain. Pressure arises from the distended vessels and thickened neurillemma. Pressure, however, cannot be the sole cause of pain, as pain is frequently *relieved* by pressure. The nerves distributed to the part are doubtless inflamed, hence the pain.

The fourth symptom, tumefaction, due at first to an increased afflux of blood into the capillaries, is afterwards greatly augmented by a retention of the fluids absorbed into the structure of the part.

Coagulable lymph stands first among the exudations in inflammation. This is capable of becoming organized and forming a living structure. It is the agent of important results, both favorable and unfavorable:

1, Coagulating on the inner surface of the larynx, as in pseudo-membranous croup, it produces death.

2. It proves useful by confining effused fluids within certain limits, as in cases of abscess and irritating effusions within serous cavities—*e. g.*, hepatic abscess—or by surrounding foreign bodies with a coating by which they are isolated and rendered harmless.

3. By its organization the opposite surfaces of inflamed membranes are often permanently united, as in the pleura, peritoneum and synovial tissues—*e. g.*, adhesions of the pleura-costalis and pleura-pulmonalis, so often found in the dissecting room, in patients who have suffered from pleuritis.

4. It constitutes the medium through which the divided surfaces of wounds are often reunited—"union by the first intention."

In each of the last three cases, the inflammation was termed by Sir John Hunter, "adhesive inflammation;" but it differs in no respect from ordinary inflammation.

Pus is considered the second product of inflammation. Pus may be produced in every tissue of the body—skin, muscle, cartilage, bone, etc.

Pathologists—Virchow, Cohnheim, Reindfleish, and others—are not agreed as to the precise mode in which pus is produced. At

one time it was believed to be a secretion from the blood. Virchow asserted that the microscope revealed no orifices in the coats of the capillaries through which pus corpuscles could possibly escape. More recently, Cohnheim has shown Virchow's doctrine to be erroneous. It is now admitted that pus is produced, in part, from the exuded lymph, in consequence of failure in the attempt at organization—the exudation corpuscles degenerating into those characteristic of pus. Again, in many instances where pus is formed, as, *e. g.*, after a severe contusion, it seems reasonable to suppose that pus begins in the disintegration and destructive changes taking place in the tissues involved in the inflammation, for it is evident that we cannot have a cavity in the solid structure containing pus, without destruction of the tissues which have been displaced by pus, and their elements broken down into that fluid.

It is erroneous to speak of the absorption of pus either by the capillaries or lymphatic vessels. The absorption of pus as pus, never did and never can occur, though for many years this was the accepted theory. While the passage for the exit of the pus corpuscle seems clear, it is forever barred against its re-entrance. Dr. Keith discussed the treatment of different stages of inflammation, giving medical and surgical, local and constitutional. Under the head of local treatment, he mentioned: 1. Removal of the cause; 2, Rest; 3, Position; 4, Cold; 5, Warmth and Moisture; 6, Pressure; and 7, Counter-irritation.

Constitutional treatment: 1. Venesection (rarely required); 2, Purgation; 3, Arterial sedatives; 4, Diaphoretics and diuretics; 5, Tonics and stimulants.

Dr. Hodgen reviewed the entire paper. He thought the definition of inflammation as given in the paper, open to criticism. He said, I know two organs in which we have the four symptoms: pain, heat, redness and swelling, and yet no inflammation, *e. g.*, the uterus during the catamenial period is highly congested but not inflamed. Again, during an erection the penis is swollen, red, hot, and sometimes painful, and yet there is no inflammation in that organ. Again, the experiments of John Hunter in reference to the temperature of the blood in an inflamed part, I do not think correct. We know that the temperature of the blood in the right side of the heart is greater than that in the left side. The blood in the heart is not as warm as the blood in

the liver or that in the portal circulation. Physiologists have proved this by experiments.

Again, does coagulable lymph ever become organized? Does *blood* ever become organized? These are questions which the ablest pathologists have not yet definitely settled.

In reference to pleuritic adhesions mentioned by Dr. Keith, I wish to say that it is notoriously not true that such adhesions are permanent—they all give way finally. The same statement is true of all the adhesions of the tunica vaginalis testis—which we produce by injecting tr. iodine, for the relief of hydroceles. All these adhesions finally disappear.

Again, "pus may be produced in every tissue of the body;" pus can never occur in the hair, nails or epithelium. True, it is produced immediately underneath the epithelium, but never in it.

Again, "pus can never be re-absorbed;" this was the doctrine of Virchow and Cohnheim, but more recently Prof. Reindfleish says that pus corpuscles can and do pass back into the blood-vessels, and therefore become absorbed. Hence Prof. Reindfleish advises the application of warm poultices in cases of inflammation.

Can "tissues degenerate into pus?" Cohnheim says they can not.

We may have the soft parts divided as in incised wounds, and bones may be fractured and yet no immediate inflammation be appreciable.

Dr. Kennard called attention to the sedative effect of tr. gelseminum, mentioned by Dr. Keith as an antiphlogistic. He would lay more stress on its use as an antiphlogistic remedy. He considered tr. gelseminum an excellent remedy in inflammation. He used it extensively. It is just as good as tr. aconite or tr. digitalis, and acts well combined with tr. aconite in equal parts. He also desired to commend the use of warm applications —especially warm water in local inflammations. He referred to the favorable mention made by Dr. Frank Hamilton, of the use of warm water in the treatment of inflammation. He greatly preferred warm to cold applications. Warm water applied to inflammations or especially contusions about the face are to be preferred, as they prevent discoloration.

Dr. Hughes spoke of the applications of warm and cold water

in inflammation. He said there are more exceptions now than formerly to the application of cold water in inflammations. He consults the feelings of his patients in every instance. Whichever application is most agreeable to the feelings of his patient, he applies. He had obtained satisfactory results both from the application of warmth and cold. He considered the definition of inflammation, as given by Dr. Keith, correct. Dr. Hodgen's illustrations—the uterus and penis, really formed no exception to the definition. Referring to the treatment of hydrocele, he said he did not inject tr. iodine but once in each case, and that just after the first tapping. He used tr. iodine not as an absorbent, but as an irritant, to excite adhesive inflammation and prevent re-accumulation of fluid.

Dr. Johnston agreed with Drs. Hodgen and Hughes, that when tr. iodine is injected in the treatment of hydrocele, it acts as irritant producing inflammation, and not as an absorbent, for all the fluid has already been evacuated. He related a case of neuralgia of the penis, severe pain was present, but no sign of inflammation, the temperature of that organ had really been lowered on account of the pain in it; the organ was collapsed. He referred also to a case reported by Dr. Gross, of neuralgia of the penis, treated with quinine and arsenic. These cases prove that pain does not constitute inflammation, if indeed, it forms any part of it. Our ablest pathologists tell us that in many cases of inflammation, they do not find an increase of temperature in the part affected, but really the reverse.

Again, if I put my hand in a vice, and squeeze it until almost every drop of blood is pressed out of it, I have pain. Here is pain without any increased redness.

When my hands are almost frozen from cold in the winter, I have severe pain, yet there has been no afflux of blood to the parts. Pain, therefore, is not due to an abundance of blood in the part affected.

He desired to know of Dr. Hodgen when to inject and when *not* to inject tr. iodine in cases of hydrocele, the danger being the passage of the iodine into the abdominal cavity? Dr. Hodgen replied, this danger never occurs in cases of accidental hydroceles—only in congenital hydroceles.

Dr. Edgar said that white blood corpsules may escape from the vessels independent of inflammation. White blood cor-

puscles do escape from the capillaries and migrate into surrounding tissues, and afterward aggregate and develop abscesses. To the question, what is inflammation? an answer cannot be framed in few words, so as to preclude criticism; for the condition is not constant in all tissues and under all circumstances. We may say it is *altered nutrition*, in a part, yet we speak of its presence being necessary to the proper repair or union of parts, also the inflammation of debility requiring active stimulants to arrest it. Like fire it may be friend or foe, but mostly foe.

Society adjourned.

ST. LOUIS, May 23d, 1874.

Dr. Hughes read an interesting paper on "The delusion of double personality, and *vulnera cerebri*." He maintained that this form of insanity, and the form known as conscious insanity, are dependent on disease implicating one, or a portion of one, hemisphere of the brain; while the other hemisphere remains entirely or comparatively sound. He also maintained that one hemisphere of the brain was physiologically and morphologically vicarious of the other.

Dr. Hodgen exhibited an apparatus—his own invention—for the transfusion of blood. The object of the apparatus is to furnish a convenient method for transfusing blood without the admission of air. He had used it successfully a week previous, with a patient suffering from advanced phthisis. He hoped to prolong the life of his patient—not to *cure* her. He anticipated only temporary relief as numerous pulmonary cavities already existed. The dangers attendant upon the operation of transfusion are:—1, Death from admission of air into the veins; 2, Death from blood-clot, producing emboli. The danger from clotting, however, is diminished by diminishing the length of time occupied in performing the operation. The amount of blood introduced was two and a half ounces. He knew of but two other instances in which this operation had been performed in this city. The first was performed by Drs. Baumgarten, Wislizenus and Engelman, the second by Dr. Prewitt, at City Hospital. Neither patient recovered. Patient did not experience any bad effects immediately after the operation, *e. g.*, syncope, etc., but declared that she felt stronger in half an hour afterward. The operation

would be repeated in a few days. The introduction of fresh, healthy blood could not be otherwise than beneficial. He considered 6 or 8 ounces a medium quantity of blood to transfuse at one time. The median cephalic was the efferent vein opened in the blood donor, and the radial, the afferent vein opened in the patient. His experience had taught him that the opening in the afferent vein should not be made at a distance from a venous branch, but near the entrance of another vein, in order that the current of blood from the venous branch might carry the transfused blood more rapidly into the circulation and thus prevent clotting.

Dr. Hodgen's transfusion apparatus consists of a cylindrical glass receiver capable of containing two fluid ounces, covered by a thin elastic cap. At the base of the receiver, a rubber tube is attached on either side by means of two short arms blown in the receiver. The afferent tube is about half an inch long, with a silver tube the size of a crow-quill, and two inches long, introduced at the afferent end. The efferent tube is 18 inches long, with a small glass funnel fastened in the efferent end, into which the blood is received directly from the subject furnishing it.

Dr. Hodgen illustrated the method of using the apparatus by a drawing on the black-board, viz.:

Let the glass receiver *a* contain water enough to fill the inlets *b* and *c* at the bottom. The silver tube *e* is now inserted into the vein of the patient and fixed to the glass receiver *a* by the short piece of rubber tubing *d*. The fingers then compress the short rubber tube at *c*; an assistant opens the

vein from which the blood flows into the funnel and by the tube *b* reaches the receiver *a*; and as the receiver is filled the air in the receiver is forced into the thin rubber cap *g*. The assistant presses between his fingers the tube by which the blood passes to the receiver *a*; the tube *d* between the receiver and the arm of the patient is allowed to open, and the elastic cap *g* is pressed, and the blood gently forced into the vein of the patient. The receiver *a* should be large enough to contain all the blood destined to be introduced at one time, as the portion remaing in the glass receiver and in the tubes *b* and *d*, is liable to clot before the receiver can be filled a second time. The advantages claimed are:—1. The glass receiver serves as a measure, in determining the amount of blood transfused. 2. It also receives the air that may be in the tube *b* leading to it. 3. The glass receiver with the thin elastic cap also serves as a pump of sufficient power to carry the blood into the vein of the patient. Dr. Hodgen, therefore, prefers his apparatus to that used by Dr. Aveling, of London, which consists of one continuous rubber tube extending from the efferent to the afferent vein, with a rubber bulb in the middle—description and cut of which are given in the *Half Yearly Compendium of Medical Science*, for January, 1874.

Society adjourned.

St. Louis, June 13, 1874.

Dr. Gregory read the following query addressed to him by a physician in the country: "What is the best local application, in the treatment of variola, to prevent pitting?"

Dr. Johnston used olive or castor oil, to exclude the oxygen of the air.

Dr. Kennard not only excluded the air but the light also. He confined his patient to a dark room, and applied a cerate of the subacetate of lead (U. S. P.), rubbed up with gum camphor.

Dr. Burgess, while in charge of the Small Pox Hospital, tried numerous external applications. All were unsatisfactory, because he was unable to darken the apartments in the hospital. He had tried xylol—the new remedy. It proved unsatisfactory He had also used sol. gutta percha, tr. iodine, sol. arg. nitr., and collodion; the latter he considered a good application. He was

most successful with a solution of silicate of soda, or liquid glass. The following are some of its advantages:—1, It is very cheap —costing only five cents per pint; 2, Its application is free from pain; 3, If applied early it will abort the pustules; 4, It is readily removed by the application of water; 5, It gives the patient no pain while it remains.

Dr. Keith confirmed the statements made by Dr. Burgess, in reference to the advantages of silicate of soda in the treatment of variola, and in facial erysipelas, also. During the year 1872, this application was used almost exclusively in all cases of facial erysipelas treated at City Hospital. Intercurrent attacks of variola occasionally occurred at the Hospital, also. All such patients received a local application of silicate of soda in solution. Very little pitting could be discovered after recovery. He considered silicate of soda a much better application than tr. iodine in facial erysipelas. Had used it in more than fifty cases at the Hospital, with better results than with any other local application. Its advantages: 1, It does not produce vesication, as does tr. iodine; 2, It forms a more impermeable coating, causing the face to shine like glass; 3; Patients preferred it to any other application.

Dr. Heyer used collodion with glycerine—twenty drops of glycerine to one ounce of collodion—with marked success, in the treatment of variola.

Dr. Coles used liquid gutta percha, locally, in variola. He had used tr. iodine extensively in erysipelas. Its application, if made early, will circumscribe and limit erysipelatous inflammation. It acts like a charm in facial and phlegmonous erysipelas. True, it produces vesication if thoroughly applied, but these little blisters let out the serum, and thus relieve the tension of the part. He had applied tr. iodine to a boil and thus aborted it. He had also aborted stys (hordeola) by the early application of tr. iodine. He had also used sol. argent. nitr., gr. xl to lx to the ounce, in erysipelas, successfully.

Dr. Curtman opens the pustules in variola as soon as they are fully formed—say from the fourth to the sixth day. He inserts immediately after opening the pustules, a strong solution of carbolic acid in glycerine.

℞ Glycerine and water, each, ʒi.
Acid carbolic (impure), ʒss.

(The impure carbolic acid contains cresylic acid, hence is to be preferred).

M. Sig. Apply with a fine camel's hair pencil.

He and Dr. Pollman observed that the thermometer fell 1½ degrees F., in a short time after opening the pustules, and the pulse diminished in frequency accordingly. These observations were made while Dr. Pollman was in charge of the Small Pox Hospital in this city.

In facial erysipelas, he invariably applies the colorless tr. iodine, made for immediate use thus:

℞ Tr. iodine comp., ʒi.
Aquæ ammonia, ʒij.
Acid carbolic, ʒ ¼.

M. Sig. Dilute with glycerine, and apply.

Dr. Hodgen thought the practice of opening variolous pustules a good one. He had done so. In this way we prevent the loss of tissue, as is done by the early opening of an ordinary abscess. His local application in variola, and in facial erysipelas, consists of equal parts of aqua calcis and ol. lini (carron oil), with a few drops of creasote or carbolic acid added—the same application that he makes to a burn—applied on a cloth.

Dr. J. M. Scott said the indications in the treatment of variola are: 1, To exclude the light; 2, Exclude the air; 3, Prevent the patient from picking the pustules—prematurely removing the scabs. To meet the first indication, darken the room. To meet the second, he applies either, 1, A saturated solution of tannic acid in glycerine to the exposed surfaces—face, hands, etc.; or, 2, A chamois skin, cut to fit the face, with holes for mouth, eyes and nose, and kept constantly moist with olive or castor oil. To prevent the third, he muffles his little patient's hands, so he can't pick his face. In erysipelas, he applies either tr. iodine or a solution of acetate of lead (ʒss to aquæ ʒi). He was opposed to using carbolic acid in variola or erysipelas.

Dr. Boislinière favored the following, as a local application to prevent pitting in variola:

℞ Ung. hydr., ℥ij.
Carbo ligni, ʒij.
Acidi carbolici, ʒss.

M. Sig. Apply freely. The application is emollient, discutient and protective.

In erysipelas he uses the following application:

℞ Tr. ferri mur., ℥ij.
Collodion, ℥v.
Olei ricini, ℥ij.

M. Sig. Apply freely.

The application of tr. iodine is too painful—it is obsolete—it is barbarous.

Dr. O'Reilly, while in Vienna, attending Prof. Hebra's clinic, had observed the application of all the remedies mentioned to-night, and several others not mentioned, both in variola and erysipelas. He had seen the oxide of zinc ointment used, and the calanine ointment. He had also seen bladders filled with ice and applied to the face in erysipelas. This treatment, however, he considered about on a par with Prof. Niemeyer's treatment of typhoid fever—by immersing the patient in a cold bath. Both are dangerous and impracticable in private practice. After observing the results of all the plans of treatment mentioned, he uses the following simple application in both erysipelas and variola, and obtains the most satisfactory results: He applies a cloth saturated with either olive or linseed oil over the face, after first oiling the face with lard.

Dr. Montgomery opens the pustules in variola, and touches them with the sharp point of a stick of arg. nitr. He uses sol. arg. nitr., grs. xl–lx to ℥i, as the best application in both variola and erysipelas. Its application in erysipelas not only relieves the pain and swelling, but checks the progress of the disease.

Dr. McDowell uses the following local application (Hebra's) in variola:

℞ Soda bisulphite, ʒij.
Glycerine (pure), ℥iv.

M. Sig. Apply freely to face.

Dr. Kueckelhan uses collodion and glycerine in the proportion mentioned by Dr. Heyer, locally, in the treatment of variola, successfully.

Dr. Edgar's local application in variola consisted of olive oil, after opening the pustules. In erysipelas he uses a solution of acetate of lead and opium, locally.

Dr. Rumbold used collodion first, then flour, in the treatment of erysipelas.

Dr. Hurt favored Velpeau's remedy, *i. e.*, a strong solution of sulphate of iron in water, to which he would add a small quantity of glycerine, in the treatment of cutaneous erysipelas. He suggested, also, the use of the ung. bismuthi (U. S. P.), as a good application, both in variola and facial erysipelas.

Society adjourned.

CLAYTON KEITH, M. D., *Rec. Sec'y.*

Reviews and Bibliographical Notices.

A MANUAL OF TOXICOLOGY, including the consideration of the *nature, properties, effects and means of detection of* POISONS, more especially in their medico-legal relations. By John J. Reese, M. D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, etc. Philadelphia: J. B. Lippincott & Co., 1874. 8vo. pp. 507.

[For Sale by the St. Louis Book & News Co.]

Toxicology has assumed an importance sufficient to claim talent of high order.

The reputation of the author of the *Manual* claiming our notice, is sufficiently well established to warrant us in expecting a work from his pen suited to the wants of the student, the practitioner, and the expert. Like his predecessors he comes, in speaking of the manner in which medicine acts, to the "ultimate facts: "How does it (the poison) produce its peculiar effects? How does it destroy life? Much of our knowledge upon this point is still speculative; nevertheless, experiments on the lower animals, conducted with proper caution, have led to some definite results. In all cases of acute poisoning, where

the symptoms run their course rapidly, life is destroyed through an impression either upon the heart, the lungs, the brain, or the spinal marrow; but *why* the poison acts upon one of these great centres in preference to another, is a question that brings us to one of the 'ultimate facts' of science, beyond which we cannot advance. To say that the poison (and the same is true of medicines) has an affinity for this or that particular organ or tissue, is evidently no explanation of the action. All we can know is the simple *fact*, and the conditions under which the action takes place. But it is an important point to be able to determine these *conditions* and the circumstances attending them." p. 30.

The entire work bears the evidence of experience and familiarity with the subject. The remarks under the head of *duties, privileges, and compensation* of experts, are judicious and valuable. The style is clear, somewhat brief, choice in the selection of proper words to convey definite ideas. The typography is almost faultless. G.

A PRACTICAL TREATISE ON THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS, including Syphilis. Designated as a manual for students and practitioners, with engravings and cases. By W. H. Van Buren, A. M., M. D., and E. L. Keyes, A. M., M. D. New York: D. Appleton & Co., 1874. 8vo. pp. 672.

[For Sale by Gray, Baker & Co.]

Part I of the work is devoted to diseases of the penis, urethra, complications of gonorrhœa, diseases of the urethra, of the prostate, of the bladder, including stone, lithotomy and lithotrity, diseases of the uterus, kidneys, scrotum, testicle, cord, vas deferens and seminal vesicles, maladies involving the general functions.

Part II treats of chancroid and syphilis, syphilis of the skin and mucous membranes, of the eye, of the ear, of special tissues and organs, visceral syphilis, of the nervous system, and inherited syphilis.

Great practical wisdom is displayed in the selection of material for these chapters, while the peculiar style in recasting the same is so fascinating that one is enticed from one chapter to another, as did *Watson's Practice*, when first published. The

sagacity and practical skill displayed in selecting the "fittest to survive," hardly has a parallel in medical literature.

We find it stated in the preface that the object of the author "is to present to the student and general practitioner a succinct account of the nature and treatment of the diseases incident to the genito-urinary organs as they are encountered in private and hospital practice."

The demand at this time for more exact information in each department of medical and surgical practice, concisely stated, in order, convenient for reference, creates a demand for new books, free from the lumber of the past and speculative of the future, which is eminently true of the work before us; while it is fully up with the latest improvements in the departments treated. Several subjects (stricture, lithotomy and lithotrity) are treated more exhaustively than will be found elsewhere. The chapters on spermatorrhœa, impotency and aspermatism are invaluable for reference, as we know of nothing written in English so satisfactory.

Finally, the book is so remarkable for its style, arrangement and substance, as to secure for itself a place on the shelves of all medical libraries, public and private, in company with the best hand-books for reference or text-books for the student.

PHARMACOPŒIA GERMANICA. The German Pharmacopœia, translated by C. L. Lochman. With an appendix explanatory of the French metrical system, and tables of weights and measures, etc. Philadelphia: David D. Elder & Co., 430 Market st. 1874.

[For sale by Gray, Baker & Co.]

The Pharmacopœia Germanica is the production of a committee of men of eminence, appointed by the North German Confederacy in 1871. The work of the committee was commenced in September and closed in December of the same year.

The number of formulæ is much larger than that in the U. S. Pharmacopœia, the description being generally much more brief. There are many useful formulæ for compound medicines not to be found in our Pharmacopœia. The difference in strength, of many of the articles, under the same efficient name as in ours, is too frequent to be here mentioned.

Copious tables of weights and measures, and an English and a German index, together with notes by the translator, complete the volume. Every druggist should be possessed of it.

REPORT ON SIXTY-SIX CATARACT EXTRACTIONS. Being those done by the methods of Von Gräfe and Liebreich. By Hasket Derby, M. D. From the forty-eighth annual report of the Massachusetts Charitable Eye and Ear Infirmary, 1874.

There were fifty-nine cases of senile cataract, fifty-seven of which were operated on by the method of Von Gräfe, and two by that of Liebreich. The results of the latter were not very favorable. "The first of the latter was able to leave the house in twenty-one days with anterior synechia and a vision of $\frac{15}{100}$. In the second, a large prolapse of iris was excised five days after the operation, convalescence lasted nineteen days, and vision was $\frac{15}{60}$ at the end of that time." Ether was administered in all the operations. "Hemorrhage into the anterior chamber during the operation (Gräfe's) was a not infrequent accident and always readily controlled by the application of soft, moist sponges that have been kept in contact with a lump of ice. Vitreous was lost in seven cases, generally in small amount. It presented but did not escape, in three others, and in two of these the lense had to be removed by means of a scoop, to avoid the threatened accident. In short, prolapse of vitreous has been noted but twelve times in one hundred and twenty-eight of Gräfe's operations, done at the Infirmary during the last two years; sympathetic ophthalmia has not once resulted from this form of extraction."

In the opinion of the writer, these accidents are at least as little likely to occur as after ordinary flap extraction. "With reference to the subsequent development of pupillar obstructions, and to the increasing density of membranes that seem to form sometime after the original operation, candor compels the writer, individually, to draw a comparison somewhat unfavorable to Gräfe's method, as far, at least as his experience has gone. This amounts only to the expression of an opinion that a flap operation *that succeeds*, does somewhat better, subsequently, than the other, a greater risk being taken for the sake of an increased gain.

"Where the cataract was double, a reasonable interval was in every case allowed to elapse between the two operations."

In the table giving the results of vision, "each fraction is given as recorded, and, except in one instance, expresses the distance from the test in which the patient actually stood.

Snellen's and Dyer's types were the tests employed, appropriate convex glasses were of course used. The propriety of not reducing the fractions to their lowest terms will be manifest on reference to the table (not inserted here), where it is seen that patients who made out xxx in 10′ could not distinguish lx in 20′; those who saw lx in 10′ lost sight of xx in 80′, etc." G.

A New Apparatus for Extensor Paralysis. By John Van Bibber, M. D. New York: D. Appleton & Co., 1874.

The "apparatus" consists in substituting for the paralyzed muscles a rubber cord, attached to the exterior aspect of the arm immediately above the elbow at one extremity, and to the lower and back part of the hand at the other, being bound down at the wrist by a bracelet or by the shirt cuff. This is ingenuously applied, and by its elasticity, supports the drooping hand, thereby relaxing the stretched muscles, and allowing increased use and more favorable conditions for treatment.

S.

A Treatise on Food and Dietetics, Physiologically and Therapeutically Considered. By F. W. Pavy, M. D., F. R. S. 8vo. pp. 574. Philadelphia: Henry C. Lea. 1874.

[For Sale by the St. Louis Book & News Co.]

To write a book on food for man was no less a new thought than to put the *eye* of the needle at the *point*, although, perhaps, not so inventive. Now that it has appeared, the surprise is that it has not been done before. If we have waited long, we have a valuable work finally, one which will be appreciated by every intelligent reader in the profession or out of it, for all must feed, and most people desire to know all they can about the food they eat. The reader of this work is first treated to introductory remarks on the dynamic relations of food, then follow chapters on the *origin of food*, the constituent elements of food, alimentary principles, their classification, chemical relations, assimilation, and physiological uses, the nitrogenous alimentary principles, and non-nitrogenous, the carbohydrates animal and vegetable alimentary substances, beverages, the preservation of food, principles of dietetic preparations for the invalid, and hospital dietaries of the various hospitals of London. The chapters on the beverages in common use, tea, coffee, cocoa, etc., are particularly interesting and instructive.

The publisher has left nothing to be desired on his part. The work having a like interest and value to the non-professional as well as professional readers, will doubtless find a wide circulation in this country.

BOOKS AND PAMPHLETS RECEIVED.

UNIVERSITY OF THE STATE OF MISSOURI. Report by the curators to the Governor, containing catalogue, announcements and other matter pertaining to the University. Year ending June 24, 1874. St. Louis: the R. P. Studley Co., printers.

TRANSACTIONS OF THE EIGHTH ANNUAL MEETING OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI, held at Sedalia, April 21, 1874. Kansas City: R. M. S. Hudson, printer.

PETER'S MUSICAL MONTHLY, for July, with its ordinary rich variety of sense and sentiment, woven into 34 pages of choice music set to the piano. Price 30 cents a number, or $3.00 per annum, monthly. J. L. Peters, 599 Broadway, N. Y.

DISEASES OF THE CONJUNCTIVA. By Dudley S. Reynolds, M. D. Louisville, Ky.: J. P. Morton & Co., printers.

WOMAN'S MEDICAL COLLEGE OF THE NEW YORK INFIRMARY, Annual catalogue and Announcement. Angell, printer. 410 Fourth Avenue.

TWENTIETH ANNUAL REPORT OF THE NEW YORK INFIRMARY FOR WOMEN AND CHILDREN, 128 Second Avenue. Year 1874. Angell, Printer.

NOMENCLATURE OF DISEASES. Prepared for the use of the medical officers of the U. S. Marine Hospital service. By the Supervising Surgeon, John M. Woodworth, M. D., Washington, D. C. 1874.

ON THE GERM THEORY OF DISEASE. By E. P. Hurd, M. D., of Newburyport.

STATE OF ILLINOIS INSTITUTION FOR THE EDUCATION OF FEEBLE-MINDED CHILDREN. Located at Jacksonville. C. T. Wilbur, M. D., Superintendent. Pupils received free of charge from Illinois. Board, tuition and washing furnished gratuitously by the State. School begins in September and continues ten months.

When will Missouri imitate the noble example of her sister State in providing for her helpless, feeble-minded children!

THE PATHOLOGY OF INEBRIETY. A lecture before the Medical and Chirogical Faculty of Maryland. By Joseph Parrish, M. D., Baltimore. 1874.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA. Wheeling: Frew & Campbell. 1874.

Editorial.

We have received the report by the Curators of the Missouri State University to the Governor, for the year ending June 24th, 1874. We confess disappointment in looking the report over not to find a statement of the amount of *income* the *Institution has from endowment or otherwise*, also the current yearly expenses of the University, particularly the amount derived from the congressional land grant fund, to be expended in the mechanical and agricultural departments.

It is said to be "due the mechanics of the State that they should be recognized in the university system in the State."* We would go a little further and say it was due the people of the United States, and particularly the people of the State of Missouri, to know if the means appropriated by the former have been expended *as prescribed by law!* How can they know this unless the amount expended yearly in the agricultural depart-

*We were not aware of a "university system" in the State before.

ment be reported together with the amount realized from that special fund!

We have the *law* and *medical* departments reported, but we are informed nothing has been done in the *mechanical department for want of funds*, a very good reason for giving the amount received and expended, on account of the industrial department. In the absence of such statement it may be justly inferred that the land grant fund, has been merged into the general fund of the Institution and that the same is expended in part to teach other departments,† which would be a divertion of the funds provided by Congress from the end contemplated.

Again, what possible interest can the people of the State have in building up another school of the professions when we have already by *private enterprise* three times the number of medical schools and three times the number of medical men needed? While these schools are of private enterprise it is their own concern, but when it is proposed to "round out a State University," by adding a department for law and medicine which are wholly uncalled for, and can only do harm by the unnecessary multiplication of non-producers, it is a matter of anxious concern to every citizen. Educating young men to apply *science to productive industry* is quite a different thing to the State—we cannot have too many men thus educated. The agricultural and industrial school is no longer an experiment in Europe but a success achieved, and as we believe for the simple reason that the pupils of their industrial schools are not thrown in company with the pupils of other schools. Our experience is too limited to claim to be an exception to the rule that mingling the students who labor with those who do not, is not productive of trouble; the agricultural school is just beginning and the mechanical is not yet opened. After they have been in full working order ten years, without friction, it will be soon enough to speak of a successful result. Now that the unfortunate step has been taken of attaching the agricultural school to the University, the only thing left is to keep the professions out.

If we are correctly informed concerning the permanent en-

†Possibly to send a gentleman to Europe to purchase apparatus for the medical department at an expense of two or three thousand dollars, instead of inspecting the *Industrial Schools* of Europe which were reported at the Paris exhibition as eminently successful.

dowment funds of the Institution, the original seminary fund amounts to about one hundred thousand dollars at six per cent. interest; that the industrial department had some 280,000 acres of land at an average value of at least two dollars an acre, a small portion of which has been sold or leased bringing yearly from eight so ten thousand dollars; that the University has received from the *public school fund* some twelve or fifteen thousand dollars yearly. If this is near the truth, the industrial department should constitute the center figure of the concern, having the foundation it should have the superstructure and "rounding out" of the Institution, and not be simply an appendage *to supply funds*. We trust His Excellency the Governor will require a supplement to the report, giving exact information concerning the financial condition and management of the Institution.

BELLEVUE HOSPITAL.

The recent action of the medical board of this Institution in suspending so large a number of experienced clinical teachers (eleven Professors of Bellevue Medical College, including Fordyce Baker, Frank H. Hamilton, Austin Flint, Sayer, Crane, and others of like ability) from the medical staff of Bellevue Hospital is the occasion of much comment in professional circles. If this wholesale onslaught on Bellevue Medical College proceeds from jealousy of competing medical schools in New York, it merits the unqualified condemnation of all men in and out of the profession. A specimen of "pure dog in the manger" policy.

If any good reason exists for this sweeping change, it is due to the medical board that it be made known. These gentlemen had served the city gratuitously for twenty years, more or less, refusing compensation, lest it should lead to party strife, and this is the return for their arduous labors.

Our public charities concerning the sick and disabled sadly need revision. As matters stand, too large a portion of the population of our large cities are served with medical advice and medicines gratuitously, most of which is due to our unfortunate method of teaching the profession in this country as an advertisement of skill and proficiency, instead of a legitimate business, paid for as any like service would be in other departments or colleges of art or science. Our miserably stilted mush

room system which has so degraded the Medical Degree in this country and divided the profession into *school factions*, ever the harbingers of personal piques and bitter jealousies, we try to have faith will some day have an end. The question is, how low are we to be dragged down before the people, in their right of self-preservation will demand legislation which shall provide a way to determine, by the *qualifications of the men* who receive degrees, what schools are worthy of the confidence and patronage of the profession. The State is as capable to protect the people as Congress is to protect the army.

CITY DISPENSARY.

We hear loud complaints against our own city dispensary, "that it is no charity, but simply taxing the city with a large expense to furnish people who are *able to pay* both for prescriptions and *medicines*, that for every case of *real charity* or necessity, *five of imposition* occur (no fault of Dr. Tuholske who doubtless does as well as any man could); that "any druggist in the city would furnish the drugs gratuitously for the few cases in his ward *where they are known*, and any physician would prescribe for poor persons living near him, when their circumstances are known," hence that there is no necessity whatever for a city dispensary connected with the Board of Health. There are thousands and tens of thousands of people in our cities who if they can get medical attendance and medicines gratuitously when sick, and quarters in hospital if disabled by accident or disease, will never provide for a day ahead, but spend half their earnings at dramshops (for the number of which St. Louis has an unenviable reputation). The more charity, the more left for whisky, and the more whisky the more charity needed, until the city is given over to saloons and charity institutions; one-half of the population engaged in making drunkards and the other half working hard to take care of them.

Is there no escape from this fearful maëlstrom? Shall we continue to feed it under the misnomer of charity? We would not abate one institution or one appropriation for *true charity*, and our profession, it will be conceded, has ever borne its part to relieve suffering humanity, but it is no less a duty to discriminate between *want* from *criminal dissipation* and profligacy,

and *want from misfortune.* We trust our Board of Health will look into this matter, and if what is claimed be true abate the evil as soon as possible.

THE REGISTRATION OF PHYSICIANS.

Now that the time has passed when irregular practitioners may register, we hope all physicians having diplomas will at once register at the county clerk's office, and take steps to enforce the law should it be violated by itenerant or irregular practitioners. If the law is not all we could desire, it is protective to the people in some degree, and hence, a step in the right direction. Let us do our part by registering, and by promptly giving information to the proper authorities of any violation of the law which may fall under our personal observation, either from the registration of *bogus diplomas* or practice without registering, and the wisdom of the law will soon be apparent to all. We are aware of the opposition to any attempt at protection of the people on the part of some members of the profession who say the masses must be educated to appreciate the importance of thorough education of physicians, that the "supply will equal the demand" and not rise above it, etc. The utter fallacy of all such reasoning is apparent to one familiar with the state of society in the European States. Who can question for a moment that the average of education, enlightenment, culture, call it what you please, of the masses in this country is equal to that of either of the European States; yet the standard of professional acquirement in Europe is incomparably higher than it is in this country. It is accomplished there by legal regulation, and in this regard we believe the experience of the old world casts a reliable light on the pathway of the new.

CHOLERA EPIDEMIC OF 1873.

We have received a circular letter from the office of the Supervising Surgeon U. S. Marine Hospital service, John M. Woodworth, M. D., soliciting contritutions concerning the cholera epidemic of 1873, particularly from the health officers and resident physicians of such towns as suffered from the epidemic. This officer being required by act of Congress to collect all facts of importance possible, with regard to said epidemic, copies of

reports or papers which may have been prepared, carefully recorded history of cases treated with all material data connected therewith, any material facts observed by health authorities or medical men, if transmitted to Surgeon Woodworth will be fully acknowledged in the official report ordered by Congress.

A NEW REMEDY.

We have for several months been prescribing various preparations of medicine containing *Lactopeptine* as an important aid to digestion. It may be advantageously combined with cod liver oil, calisaya, iron and bismuth, quinine, strychnia. Elixirs of these articles, and many others with *Lactopeptine* added, are prepared for the trade by Reed & Carnrick, of New York. Lactopeptine is composed of pepsin, ptyalin, pancreatine, lactic acid, and hydrochloric acid—pepsin, lactic and hydrochloric acids being in the gastric juice, ptyaline in the saliva and pancreatine emulsionizing fatty substances. The theory of its action being rational, we have prescribed the various preparations referred to above with more evidence of benefit than we ever observed from pepsin. Reed & Carnrick, on application, will furnish a catalogue of their preparations with all needed information concerning administration.

Dr. Montrose A. Pallen leaves St. Louis the present month to accept the position of Lecturer on *the Surgical Diseases of Women* in the New York University. Enthusiastic in his chosen speciality, this enlarged opportunity is doubtless attractive as affording a wider field for increasing experience and ability. We wish the Doctor abundant success in his new field of labor.

THE SUPPLEMENT.

We add a few pages to our ordinary issue in the present number, as a supplement, to give our readers Dr. Hughes' Address on Insanity, delivered before the Alumni of the St. Louis Medical College, in March last, at their annual meeting. The earnest solicitude both in the profession and community, concerning the management of our insane warrant a careful reading by the general practitioner of his interesting and suggestive remarks.

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

JULY, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	72.0	92.0	18	69.0	90.0
2	70.0	93.0	19	73.5	96.0
3	74.0	96.0	20	76.0	97.0
4	74.5	102.0	21	72.5	90.0
5	78.0	100.0	22	67.5	81.0
6	79.0	103.0	23	75.0	95.0
7	79.0	106.0	24	79.5	97.5
8	74.0	80.0	25	79.5	100.5
9	73.0	84.0	26	82.0	100.5
10	72.5	92.0	27	73.0	84.0
11	67.5	87.5	28	64.0	82.5
12	66.5	88.5	29	65.5	85.0
13	72.0	95.5	30	68.0	91.0
14	75.0	99.5	31	71.5	80.0
15	76.0	96.0			
16	69.0	86.0	Means	72.8	92.3
17	68.0	92.0	Monthly Mean	82.5	

Quantity of rain: 4.43 inches.

Mortality Report.—City of St. Louis.

FROM JULY 25, 1874, TO AUG. 22, 1874, INCLUS.

Accident Drowning.	5	Debility	17	Hydrocephalus	11	Paralysis	1
" various	8	Dentition.	11	Hemiphlegia	2	Pneumonia	13
Alcoholism	1	Dysentery	14	Hemorrhage, Pulm.	3	Puerperal Conv.	2
Anemia	3	Diarrhœa	29	" Cer.	2	Prostatitis	1
Atelactasis	1	Dropsy	2	" Bow'l.	1	Pertusis	13
Apoplexy	6	Eclampsia	7	Intestinal Catarrh.	2	Premature Birth	1
Atrophia	1	Emphysema	1	Inanition	3	Sunstroke	16
Addison's disease	1	Enteritis	5	Inflam. of Brain	1	Scrofula	1
Brain, cong. of	44	Entero-Colitis	1	" " stomach.	1	Syphilis, Cong.	1
" inflam. of	2	Encephalitis	2	" " bowels.	2	Suicide	5
" soft'g of	1	Epilepsy	2	Ileo-Colitis	3	Summer Complaint.	117
" effusion on.	1	Erysipelas	1	" Typhus	1	Stricture of Rectum.	1
Bowels, Congestion.	1	Enteralgia	1	Intestinal obst.	1	" " bowels.	1
Bronchitis	10	Fever, Congestive	10	Jaundice	1	Tumor abdomen	1
Bright's Disease	1	" Scarlet	7	Liver Hypertrophy.	1	Trismus	14
Cancer of stomach.	3	" Remittent	4	Lung, Cong. of	4	Tetanus	3
" " uterus	2	" Typhoid	5	Lead Poison.	1	Tussis Cœrulia	1
Cholera morbus	10	" Typhus.	2	Marasmus	29	Uremia	1
Cerebritis	1	" Puerperal	2	Meningitis	17	Unknown	2
Consumption	38	Fibro Cystic Tumor.	1	Meningitis Cer. Sp.	1	Variola	23
Convulsions	36	Fracture of Spine	1	Measles	1	Varioloid	2
Conges. intestinal	1	Gastritis	3	Murder	1		
Disease of Liver	1	Gastro Enteritis	7	Nephritis Metritis	1	Total	650
Delirium Tremens	1	Heart, Dis. not def.	1	Old Age	6	Stillborn	37
Diphtheria	8	" Valv. Dis.	1	Pemphigus	1	Under 5 years	421

SUPPLEMENT.

INSANITY: A CURSORY VIEW FOR THE GENERAL PRACTITIONER.

By C. H. HUGHES, M. D.*

"The study of the human mind is the noblest branch of medicine."—*"Grotius.*

"The arrest of insanity in its very beginning is that which, above everything, should be studied by all medical men."—*Blandford.*

"We look forward to the period which, we hope is not far remote, when all cases of insanity will be brought as promptly under the observation and care of the physician as other diseases, and when the medical profession will be as ready and as fully qualified to treat insanity as other nervous and cerebral disorders. Then, such cases as should be treated in hospitals will be promptly sent and the great and prolific source of chronic insanity will be promptly arrested."—*Dr. Jno. P. Gray, N. Y. State Lunatic Asylum Report*, 1868.

PREFATORY AND APOLOGETIC.

These pages are what their name implies, a *cursory view*, not a *synopsis.*

No synopsis, however brief, of so extensive a subject as insanity, could be compressed within the present limits. Matter equally valuable with that herein presented has been excluded and more of it.

The literature of insanity is extensive and the general practitioner has neither the time to peruse it, nor the opportunity to verify facts and truths by experience. Herein are some facts connected with this important subject which we have assimilated and made our own by medical intercourse with the insane.

We hope the extreme brevity of the paper, the hasty manner of its preparation, and the many omissions for want of time and space, may not divest the essay of all interest to the general practitioner, while for the psychopathic physician who makes mental disease a speciality, the writer is conscious that the paper is inadequate and incomplete. Were it not incumbent upon me to redeem a rash promise to medical friends in the State, this paper would not now be written.

*Read before the alumni of St. Louis Medical College at their annual meeting, March 13th, 1874, and ordered to be printed for distribution by the Association.

GENERAL REMARKS.

When we consider how pre-eminently practical a subject insanity is, and how few among general practitioners have had opportunity afforded them of studying the protean phases of mental alienation as they are to be seen in a hospital for the insane, it becomes at once apparent how perplexing is the dilemma of the physician engaged in ordinary practice when, in the course of a physical disease involving the brain or other organ, mental aberration supervenes. The absence of that clinical experience which enables him to make a prompt and wise decision in all the varying changes of the ordinary physical lesions he has been accustomed to encounter, and the consciousness of this want of practical knowledge on the subject, causes hesitation and indecision. The more intelligent and skillful the physician is, in ordinary cases, the greater the hesitation and indecision, and the absence of mental alienist physicians who have studied insanity in the only place in which it can be comprehended—the insane hospitals—leaves no alternative to the conscientious practitioner, who would rescue, if possible, the overthrown mind of his patient, but to consign him to the insane asylum. He would treat him if he could, and thus save his patient and the friends of the patient, both the expense and pain and stigma of separation and removal to an asylum.

But how can he determine whether his case be one of those which he may safely treat at home. To determine this question a great number of practical questions which he has never before considered are to be determined by the physician. Is he suicidal or homicidal, or likely to become so? What antipathies has he formed? Is there danger to wife or husband or children, or is their presence detrimental to his mental welfare? Can he be treated and cured by medicines alone? How long would it be safe, without incurring the liability for malpractice, to attempt to treat him at home? Is he in a condition to be benefited by the moral agencies and appliances, or to require the restraints of an asylum? How can the patient be approached daily and treated without incurring his antipathy? When ought treatment to be foregone and the certificate given which is to consign the patient to the insane asylum? Delay is dangerous in most cases. How are the exceptional cases to be determined? On

the other hand, a too hasty and needless certificate of insanity sullies the patient's good name and imperils his future financial interests and social standing often, in many if not most communities, in the light in which mental affliction is still regarded.

I do not propose to answer all these questions or the many more which present themselves to the practical alienist physician. To answer them correctly would require a series of clinical lectures and require more space and time than we have to spare, for they are all practical questions, to be learned in the hospital, as variola, or varicella, or scarlatina, or rubeola, or phthisis, or bronchitis. Many forms of insanity resemble each other as much as these varieties of the more purely physical diseases resemble each other in their early stages, and in making up a decision respecting them, how to treat and dispose of them, etc., requires the same kind of practical skill and experience. Some medical men of no practical experience on the subject boldly discuss questions of insanity in a theoretical way, and yet none would be more ready than they to condemn those who would denounce the practical conclusions of clinical experience in regard to other diseases, upon purely theoretical grounds. The existence of the affective insanities are thus denied because it is reasoned that the impulses, propensities or passions cannot be deranged without the reason being also dethroned, whereas the fact is, as can be demonstrated in every insane hospital, that the *affective* faculties are in most cases more implicated than the *reflective*, and in some the intellectual aberration is not appreciable, but only apparently in *abeyance* whilst the affective faculties are most notably disordered.

These preliminary pages suggest questions which would require volumes to discuss. We forego discussing them, as appertaining rather to the province of the practical alienist physician than to the general practitioner, and pass to a more important part of our paper, the

CONDITIONS OF MENTAL MANIFESTATION.

"Mental power* is truly an organized result, not strictly speaking built up, but matured by insensible degrees in the course of life. The brain is not, like the liver, the heart, or any

*Maudsley Phys. and Path. of Mind, p. 4.

other internal organ, capable from the time of its birth, of all the functions to which it ever ministers, for while, in common with it, it has a certain organic function to which it is born equal, its highest special functions in man, as the organ of animal life—the supreme instrument of his relations with the rest of nature—are developed by long and patient education." "It must be distinctly laid down," says the same writer from whom we have just quoted, "that mental action is as surely dependent upon the nervous structure as the function of the liver confessedly is upon the hepatic structure." Say, rather mental *manifestation* in lieu of *mental action* and the proposition is admitted as irrefutable truth. No one will deny in view of the light which modern physiology throws upon the subject, that mental manifestation is due to the physical condition of the brain and in the language of Mr. Maudsley we may say, "that whatever be the real nature of mind * * * * it is dependent for its every manifestation on the brain and nervous system."

The profession have generally accepted as true the doctrine of molecular disintegration and retrograde metamorphosis of structure as conditions of organic activity and from applying this law to the glandular and muscular and nervous structures, have extended it to the higher function of mentality and made all mental function dependent for its manifestation or display upon the physical condition of the organ with which all psychical states are invariably connected.

We have said this much because we deem it an essential preliminary to a correct understanding of the phenomena of mind deranged, that we form a correct conception of the definite relationship which mind invariably sustains to that "highly complex organism"—the brain and nervous system—through which alone all psychical states, whether we term them morbid or healthy, natural or unnatural, are revealed. As the ganglions and cells of the spinal cord develop a nervous force concerned in the movements of the organic and involuntary life of the individual, so the cells of the brain develop a higher nerve force, which, for *convenience*, rather than scientific exactness, we may term a "*mental force*"—whose special function is the manifestation of mind, taking care not to *identify* mental power with nervous force simply because the preliminary gen-

eration of a certain nerve force is the indispensable condition prerequisite to the physical manifestation of all psychical states. To our mind there is a difference between psychical and physical tone, though upon the physical tone of the brain and physical system depends the manifestation of mind. As physicians, then, we are in a certain sense materialists, viewing mind through the physical organ concerned in its manifestation.

Fortunately for practical medicine, in connection with mental disease, it is immaterial whether in accordance with the teachings of holy writ and the attestation of the general consciousness or instinctive sense of mankind, we believe "there is a spirit in man," or whether we regard mind solely as an attribute or force of matter; it is doubtless a universally admitted fact above and beyond disproof, that the mind, whatever be its real nature, is dependent for its every manifestation upon the brain and nervous system, and that all we know or may ever know of it is discernable and must ever be discernable, in this mortal state, through the study of its organ—the brain and allied nervous system.

The study of the mind in health is therefore psycho-physiology rather than simply psychology; the study of the "mind diseased or deranged," as we term it, is therefore, psychopathology, or insanity, and this brings us at once to the definition of insanity.

THE DEFINITION OF INSANITY.

Recognizing the brain as the organ of the mind in its diseased or disordered as well as healthy or natural manifestations, we are prepared for a definition of insanity upon the basis of disease.

Though insanity was generally regarded by the ancients as a punishment for having incurred the displeasure of the gods, and by the moderns, until a century or so ago, as a diabolical possession, Æsclepiades, Cælius-Aurelianus and Celsus treated it as disease, though the latter, by the liberal use he made of coercive measures such as are now deemed too harsh for employment toward refractory convicts, evidently did not consider the acts of the madman always influenced by disease. While a few psychologists still look upon insanity as a mental as well as a physical disease (though it is difficult to comprehend how the

mind, if it be an entity separate from the body only dependent upon it for "the display of its powers," can become diseased and yet not die), the most weighty and reputable modern authorities regard it as "a disease of the brain affecting the mind."

Without passing in review all the various definitions which have been offered, all having cerebral disease as a basis, but varying in other essentials, we reproduce some of the most approved definitions for the purpose of examination and remark.

Dr. Tuke,* after quoting the well-known saying of Dr. Johnson in regard to attempts at defining poetry, namely, "that they only serve to show the narrowness of the definer," and after animadverting on the definitions of Cullen, Guislain, Combe and others, and very properly objecting to considering *chronicity* and apyrexia as essential to a proper definition of the disease, himself defines it as follows:

"A disease of the brain affecting one or more of the mental faculties—intellectual or emotional." He quotes Dr. Bucknill as substantially the same, namely, "a condition of the mind * * * produced by disease," and concludes that "it is not in any definition of mental derangement," but rather from descriptions of the disorder and actual observation of the insane that we are to comprehend its true characteristics," just as the great Esquirol had confessed before him after forty years study and observation at the Salpêtrière and the hospital at Charenton.

"We must live with the insane in order to become familiar with their physiognomy and obtain exact notions respecting the causes, symptoms, course, crisis and terminations of their malady" and having thus become practically familiar with their gestures, movements, looks and general aspects, their proposals, actions and shades of conduct, which are imperceptible to others, and having learned by experience the "varied and fugitive forms" of insanity, we then realize the difficulty of describing it; and if we go from the wards of the insane hospital to the dead house, and essay with scalpel and microscope to find definite pathological changes in the brain to account for every case

*Bucknill and Tuke on Insanity.

dying with reason dethroned, we leave the cadaver oftentimes unrewarded for our labor.

Nevertheless our asylum pathologists now seldom fail to find either morbid states of the meninges, the cortical layers, or the ventricles, or evidences of ante-mortem vascular derangement, sufficient to account for possible mental impairment.

We are thus gaining much more light upon the pathology of insanity than formerly, and when every State asylum shall have its well salaried pathologist and microscopist (as some now have), we shall then be able to definitely establish what we now assume, that "every mental disorder is founded in organic changes from which the brain suffers either primarily or secondarily."*

It is no more difficult to frame a sufficiently comprehensive definition of insanity, for all practical purposes, the basis of disease being admitted, than to frame a definition of anything else. Definitions are always difficult. We have not found an abolutely unobjectionable definition of health or an unerring definition of disease† nor can we frame an unquestionable definition of life of which insanity, viewed from the usual psycho pathological standpoint, is but a deranged manifestation of its highest form—mentality.

This fact seems to have so appalled a recent and very lucid writer‡ on insanity that he contents himself and his readers by saying, "by daily intercourse with sane people we know very well what is meant, when, in ordinary phraseology, we speak of a man being 'right in his mind' * * * * and conversely we say a man is unsound of mind when he forgets most of what happens to him; can form no judgment from what he has seen or learned; when his acts are outrageous and he can give no good reasons for them; when his ideas concerning himself are palpably false, *i. e.*, delusions, or when he is quite unconscious of what he is doing."

The author evidently does not intend this for a definition but for a description of the legal "unsoundness of mind, memory and understanding," and under it may be included idiocy and imbecility which are not the result of disease in the individual.

*Leidsdorf.
†Flint.
‡Blandford, Lecture III.

We quote for the purpose of comparison and remark the description of Dr. Combe, namely: "A *prolonged* departure, *without adequate external cause*, from the state of feeling and modes of thought usual to the individual in a state of health."

This oft-quoted and favorably received definition cannot embrace the *mania transitorias* in which many alienist physicians* now believe. Dr. Ray, however, in his most excellent work on the jurisprudence of insanity, quotes with approval and italicis this definition, which is indeed, a most excellent and comprehensive symptomatic description of insanity as usually seen in our asylums, but a *prolonged departure* is not necessary to constitute insanity. The insane symptoms may disappear in a case of transitory or recurrent mania, or with the subsidence of the cerebral hyperemia or other cause which may have occasioned them, and the *external cause may be adequate* to produce a prolonged change in the habits of thought, feeling or action of the individual, and that mental change have nevertheless all the characteristics of insanity. *Chronicity* is objectionable and the adequacy or inadequacy of the external cause is immaterial, so that the internal or physical cause be a morbid one, and the mental departure from the natural habits of thought, feeling or action of the individual be dependent upon that morbid physical cause. Insanity, therefore, whether acute or chronic, and howsoever acute, or howsoever chronic, is a mental change in the individual resulting from cerebral disease.

If no change in the habits of thought, feeling or action of the individual takes place, then it is not insanity. *The true test of insanity is the comparison of the individual with his former self* taken in connection with disease of the brain. The cerebral disease may exist in the brain primarily or secondarily. Insanity defined upon the basis of disease is thus distinct from idiocy and imbecility, by the fact of comparison of the individual with himself revealing no change in mental manifestation dependent upon disease.

Some writers on the jurisprudence of insanity have included idiocy and imbecility in their classification of insanity, while others have drawn a line of demarkation between the congenital deficiency of idiocy, the arrested development of imbecility,

*Dr. Jarvis on Mania Transitoria, Journal of Insanity.

and the disease insanity. Blandford considers imbeciles and idiots, of unsound mind, but not "insane in the ordinary sense of that word."* Maudsley, I think, does not discuss the subject in his physiology and pathology of the mind, and Esquirol draws a distinction based upon the difference between cerebral disease and cerebral deficiency. We hurry on now to the

CLASSIFICATION OF INSANITY.

It is evident from the fact that our knowledge of the special and intimate pathology of the brain is still quite limited, that a classification based upon specific structural lesions cannot be made, and the various classifications thus far proposed serve only to reveal the prominent symptom or group of symptoms.

I know of no better division than that of Maudsley into *affective*, or *pathetic*, and *ideatinal* insanity, the latter embracing all forms of delusional insanity, dementia and the general paralysis of the insane, and the former including the moral and impulsive insanities, or manias without delusion, the melancholias without delusion, and the insane temperament.

In relation to classification, Dr. Maudsley justly observes: "Whatever classification be adopted in the present state of our knowledge * * * it must be provisional. What meanwhile it is important to bear in mind is, that the different forms of insanity are not pathological entities, but different degrees or kinds of degeneration of the mental organization."

The line of demarkation between the extremest limit of sanity and insanity is an exceedingly shadowy one. With the advance which pathological science is making in the insane asylums of this and other countries, I think we may confidently look to the future revelations through psycho-physiology and pathology, with the chemical, microscopic and other aids at command, for a satisfactory material explanation of all the phenomena of mind—natural or unnatural, healthy or diseased—manifest to the world without. It is not beyond an impossibility that we may discover in the free surfaces of the cerebrum the now conjectural ideational cells, and the molecules concerned in the expression of all mental states.

I think we shall not long remain in the dark in regard to the

*Insanity and its Treatment. p. 336.

specific morbid cerebral states which give rise to the various forms of insanity and the material reasons for the transitions of many of these forms, the one into the other, during the progress of an attack. We now know a good deal more than formerly on this subject, but must learn much more in order to be able to classify insanity according to the precise structural lesion giving rise to the symptoms. Mr. Skae, of Edinburgh, gives a classification of twenty-five varieties, based upon morbid conditions, but the precise morbid conditions have never yet been pathologically defined. Dr. Blandford reproduces it, and thinks it so "valuable as the precursor of all that will follow, that he gives it a place in his excellent book on insanity, page 63. It makes distinct classes of the epileptic, climacteric, masturbating, pubescent, hysterical, sexual, senile, phthisical, metastatic, traumatic, syphilitic, amenorrhœal, dipso and nympho manias, also of utero-mania, satyriasis, the mania of sunstroke, pregnancy, childbearing, lactation, the general paralysis of the insane, idiopathic mania, idiocy, imbecility and delirium tremens. These are all probably different pathological states but their pathology is not well defined. When our pathological knowledge is more exact than now we shall speak of the precedent, co-existent, and subsequent abnormal molecular action in the brain as the true disease, and regard the organic functional derangement as the *effect* of disease, obscure or manifest, and not *the disease itself.*

We shall then comprehend the homicidal, suicidal, dipso, klepto, pyro, eroto, manias, and the whole class of moral insanities, monomanias and melancholias, together with dementia and paresis, differently from what we do now. They will represent specific disease of the cerebral cells, morbid states of certain portions of the convolutions, the ventricles or other portions of the brain. Leidsdorf and others do not hold this view, but let us hope that they may be mistaken.

The modification which Dr. Batty Tuke proposes of Dr. Skea's classification will give the general practitioner an indication of how much this disorder depends upon physical states, and afford him hints to the treatment of many of its forms.

DR. BATTY TUKE'S CLASSIFICATION.

CLASS I. *Insanity from Impaired or Arrested Development.*—Idiocy, congenital or acquired.

CLASS II. *Idiophrenic Insanity.*—Sthenic and Asthenic Idiopathic Insanity; Phrenitic Insanity (Inflammatory); General Paresis; Paralysis with Insanity; Traumatic Insanity; Epileptic Insanity.

CLASS III. *Sympathetic Insanity.*—Epileptic Insanity; Insanity of Masturbation; Insanity of Pubescence; Climacteric Insanity; Ovarian and Uterine Insanity; Insanity of Pregnancy; Puerperal Insanity; Post Connubial Insanity; Hysterical Insanity; Enteric Insanity.

CLASS IV. *Anemic Insanity.*—Limopsoitos (Starvation); Post Febrile Insanity; Insanity from Lactation.

CLASS V. *Diathetic Insanity.*—Insanity of Tuberculosis; Insanity from Syphilis.

CLASS VI. *Toxic Insanity.*—Cretinism; Delirium Tremens; Insanity of Alcoholism; Insanity from Opium Eating.

CLASS VII. *Metastatic Insanity.*—Rheumatic; Pellagrous; From Healing of Long Established Issues.

CHARACTERISTICS OF INSANITY.

Within the limits of a paper I scarcely dare venture upon this subject. Dr. Blandford devotes a whole lecture to the acts of the insane alone, and one could profitably spend many hours in describing their distinctive peculiarities, but hours are not at my command to relate nor at yours to listen. I pass rapidly over a few distinctive sympathetic features of the prominent forms of insanity recognized by all authorities, and hasten to the next head.

Melancholia without delusion is simply excessive depression, an exaggerated degree of "the vapors," or the blues. With delusion, it is usually accompanied with attempts at self-mutilation and suicide.

When delusions exist in mania they are usually, but not always, expressed in acts or words, consistent or inconsistent, with the morbid fancies. Destructive propensities, indifference

of person, suspicion and distrust of nearest of kindred and best of friends, attempts at violence to self or others, refusal of food so as to render feeding by the stomach-pump necessary, or ravenous and insatiable appetite, with bolting of food unmasticated, are characteristics of the general insane. The eating of fæces, plaster and dirt, stuffing foreign bodies into the nostrils and other cavities, and every conceivable extravagance of action and language, as might be expected when the mental machinery is generally disordered, are found among the insane. No one fails to recognize insanity in its exaggerated forms, especially in its three most common forms, melancholia, delusional mania and dementia; the latter being closely allied in appearance to idiocy.

When the symptoms of a case are such as to present the phenomena of the different stages of intoxication, insanity may reasonably be suspected if intoxication can be disproved. It is the insanity of the passions, the affective insanities, *without apparent delusions*, unrestrainable impulses, because of disease, the *so-called moral insanities* and morbid emotional states, which are so difficult to distinguish from similar states of mind not dependent upon disease, that give us trouble before the courts and place us wrong before the public, and yet these are the cases which especially demand the physician's protection. When a poor lunatic's insanity happens to assume some phase of moral depravity he receives no commiseration from an unsympathizing public, and there are not wanting physicians who, without experience, are ready to deny the existence, on general principles, of all exaggerated or perverted emotional states dependent upon disease of the brain, notwithstanding a few days' residence in a lunatic asylum would suffice to convince them of their error. And the press are all self-constituted experts on this subject.

Insanity is eminently a practical question. "We must live with the insane" to understand them.

The intellect is always perhaps implicated in the so-called moral and emotional, or affective insanities, but sometimes scarcely perceptibly involved, being rather in *abeyance* than deranged, yet those forms of insanity which have been so denominated have an existence in fact. Any one who chooses may see them in our asylums, whatever may be the degree of intel-

lectual impairment which we may consider to co-exist. The contest is over the name and not over the fact. Any one who will examine these cases and go into their history will see that their mental state has undergone a change, that they seldom fail to present physical evidences of lowered nerve tone, and that the "tyranny of a bad organization" has descended to them from their ancestors. The "fatal heritage" of an unstable nervous organization is theirs, and they live on the "border land" until some cause quite insufficient to overthrow a stronger mind casts them over into the realm of well defined insanity. Moral insanity is an illy chosen term, but the fact which it represents is demonstrable.

Insomnia is a characteristic of all active forms of recent insanity not accompanied with stupor and cerebral apoplexy. The patient does not sleep as long and as soundly as in health. A lost link in the chain of memory can always be detected on close scrutiny of the mental condition of the insane. They either forget important and common facts, names and dates, which before they had been accustomed to retaining without difficulty, or they fail to *remember those emotional states*

So much interest has the subject of insanity awakened in the public mind of late, that the legal profession are at the feet of the medical profession in a large number of their cases, seeking to know, not the *rationale* of conducting their cases, but the *rationality* of their clients. The question of sanity or insanity has to be answered by physicians; and the honorable standing of our profession before the world, demands of us the ability to clearly answer this question. Psychiatry has grown into an important science. Its claims upon the profession at large can no longer be ignored. The duty of understanding the subject of insanity therefore belongs to the whole profession as much as the duty of studying the nature, treatment, medico-legal bearing causes, and prevention of any other disease. Itself one of the gravest physical disorders of the system, it is one of the most curable if treated in season. This the statistics of recovery of recent cases to be found in the reports of the insane hospitals of this country and of Europe indubitably show. More than seventy-five per cent. of recent cases—three months standing or less—recover under proper treatment. The general practitioner by comprehending the preventive

treatment of insanity, might save many cases from the asylum, and thus contribute to eradicate the insane temperament which is becoming a feature of modern high pressure civilization, as much so as the diathesis of syphilis, cancer, or phthisis. Mental hygiene has become a grand science.

Pinel, in the reformation he effected, conferred upon himself and his profession immortal honor, and his name will live through the coming ages with that of Jenner; but a greater benefactor than Pinel or Jenner will be he who shall stay the progress of that physical "pestilence that walketh in darkness"—the hereditary insane neurosis—entailing evils upon the future of the race which we may calculate as we compute compound interest, until the interest becomes greater than the principal.

Insanity may be treated and cured in hospitals, but cannot be arrested in its spread by the multiplication of these receptacles. Many cases, when they become established, cannot be treated elsewhere, and an insane hospital should have every agency for restoration suggested by the humanity and science of the age; but the physician outside the insane hospital must treat and cure it in its early stages and prevent its development. The family physician should be on the alert for the earliest manifestations of hereditary nervous disorder in the growing child, which may proceed from, or ultimate in, confirmed insanity, and seek to eradicate it at the time when, during the process of development, nature will aid him, and he may aid nature in conducting the child by proper reconstructive neurotic and hæmetic tonics and correct hygienic measures, into a healthy adult. *Mens sana in corpore sano.*

It is therefore in the study of the insane temperament, and how to prevent its development, that we may hope to do our duty as physicians in arresting the progress of insanity. The insane temperament, as Maudsley justly observes, is a "very Proteus," manifesting itself in an innumerable variety of forms of nervous disorder. Thus insanity in the parent may appear as epilepsy, chorea, hysteria, catalepsy, etc., in the child, and in violent paroxysms of unreasonable and causeless anger, and other perversities of temper and disposition, and *vice versa*. It may manifest itself in as many morbid forms as the voluntary nervous system has normal functions. The safe rule

should be to keep strict watch over all nervous phenomena in children, especially until after the period of dentition and puberty are safely passed, and to endeavor by every means we can command to restore the nervous tone. We should look to the education of the child from childhood and youth up, and be sure that the mental balance is not disturbed by irregular development of the brain, or excessive development in a particular direction. The emotional nature of such children should be especially restrained within proper limits, and to this end much of the exciting fiction of the day should be kept out of their reach. A plain matter-of-fact education, in which mathematics, the physical sciences and geography are prominent, is the best for such children. Guard against over mental strain in early as in later years.

The commotion of the system at puberty, and the first coming on of the menses, require special watching from the physician and such medication as will preserve the nervous system against agitation and irritation. Later in life, when the turn of life comes on and the woman ceases to menstruate, and the ascendency of the reconstructive over the destructive processes cease; when the vital powers in man or woman begin to decline from age, we may look for the outcropping of the fatal heritage, guarding against it by all the means in our power to prevent the too rapid and irregular decay of the tissues.

which were natural to them in a state of sanity. They do not perceive precisely what change has taken place in themselves. They forget how they felt in mind in regard to the common circumstances and occurrences transpiring about them. It is thus that they lose their personal identity and take up delusions. They have changed without knowing it, and, confounding the *subjective* with the *objective*, they imagine that persons and things and circumstances about them have altered.

The pulse and temperature vary considerably in different cases, but are slightly increased as a general rule in most cases. The skin is often dry and harsh, but not unfrequently moist, and emits an offensive, and by some authors thought to be characteristic, odor.

I do not speak of the sphygmographic tracings and the ophthalmoscopic evidences, because these means of diagnosis are still on trial, and because while awaiting further revelations

from them, I am economizing your time. For the same reason I omit to say anything about the phosphates in the urine. Constipation is quite a common symptom in recent cases, and in chronic cases a bloody tumor between the cartilage and perichondrium of the ear is often observed, called the insane ear. Irregularly contracted pupils are not unfrequent and quite characteristic, and exopthalmic goitre is as frequent as the insane ear.

Disease of the brain, affecting the mind, sometimes runs its course, and terminates by leaving a mental scar which more or less compromises the mentality of the individual for life, or it may terminate in a kind of imbecility, dementia, or paralysis of all or nearly all the faculties, or end in complete recovery.

The insanities which have their origin in physical states without the brain are the most curable, if the physical disorder is removable. Hereditary insanity often recovers and often relapses, being easily excited by slight and transient causes. Some cases of hereditary insanity seem closely allied to hysteria, in the facility with which they are excited and recovered. Traumatic insanities are the least entailable upon progeny.

But we cannot write exhaustively on this subject without converting our essay into a treatise, and of these you have better ones than the writer could prepare, on the shelves of your libraries.

A volume might be written on the characteristics of insanity alone, a volume likewise on the varieties of insanity, another volume on the pathological states of the brain, even so far as at present known in insanity, a volume on the therapeutic and moral management of the insane, and another volume on the the causes of insanity, for their name is legion.

Our object has not been to present the subject *in extenso*, but rather in the *abstract*.

We have neither the time nor has the general practitioner the leisure, to read such a discourse on the subject as would suit the alienist physician, and we have even felt it our duty to omit more than half we had written, for fear of being tedious. We have mainly desired to excite more general interest in a subject which it is the duty of the profession at large to more thoroughly comprehend.

"Insanity," a writer* of the day remarks, "is a subject upon which medical men are least informed of all the branches of medicine, yet we doubt very much if there be a disease in the whole field of medical literature which is more interesting to study, more formidable to the friends of the patient, or more disastrous in ts results when not treated properly, than the affection in question.

"There is no disease the general practitioner desires less to attend than this, which he is every now and then obliged to encounter in his private practice, simply because he feels ill prepared to take charge of such a case, and this very feeling causes him to shirk not only the medical responsibilities but also the legal."

Long after Grotius wrote that "the study of the human mind was the noblest branch of medicine," the medical profession slumbered upon this subject, and they are slumbering still, for the asylums, the jails and the poor houses of the land are now the recipients of thousands of chronic and incurable dements, who, by timely medical aid, which might have been given them by a more generally enlightened profession, could have been saved to lives of sanity and usefulness.

It was not until a century or more after Grotius lived, when Pinel and Tuke struck the shackles from the poor lunatic, that the fetters of prejudice began to fall from the minds of physicians and philanthropists, and the poor unfortunate of reason dethroned began to receive the medical and moral treatment which his condition demanded as an afflicted brother, maddened by disease, rather than that Satanic possession which the cold charity of times so recent had characterized as the cause of this direst of human maladies.

And now there are in this country alone more than sixty hospitals for the insane, with an average capacity of over three hundred beds, accommodating more than one-half of all the insane who at this time probably require treatment.

These hospitals are most generally presided over by humane and enlightened physicians, who recognize in the manifestations of insanity evidence of a brain diseased, as well as a mind de-

* Hammond Psych. Jour., July, 1871.

ranged, and treat the unfortunate victim of the disorder in accordance with the suggestions of humanity and science.

The restored lunatic, coming back to society, blesses the instrumentality of his cure (if he be thoroughly restored), and the asylum physicians, through concert of action, by means of asylum reports, and deliberations and deliverances of the Association of Superintendents, in this country, are doing much to enlighten legislators, physicians and people on this important subject. The wonderful progress which mental alienist physicians have been making and publishing with reference to the functions of the nervous system, and the treatment of its diseases, have led the general practitioner to cry out for more light, and many of our medical schools are beginning to recognize the necessity by establishing chairs of psychological medicine.

It is at this stage that the ferro-cyanide of iron and the hypophosphates of iron prove serviceable as reconstructive tonics to the system, and a little wine and pepsin for the stomach's sake are not *mal a propos*, and when bromide of potassium, and chloral and valerian may be judiciously and efficiently employed to allay nervous irritability and to arrest the too rapid disintegration of the cerebral cells upon which it depends.

This is the period, too, when electricity and strichnia may be beneficially employed, when the kidneys may be appealed to occasionally by suitable diuretics, and when the Turkish bath, occasional diaphoretics, frequent ablutions and frictions tend to keep the skin in a healthy activity, and prevent that dry and scaly state of the epidermis, not uncommon to advanced age, and especially among the aged insane.

This is the time when the burdens of life should be transferred to other shoulders; when business perplexities and domestic irritations should be removed far from the patient, so that his or her declining years may be spent in mental quietude and peace, and the patient, if he possess an inherited tendency to insanity, may go down to the grave with mind unclouded, and reason, though feeble it may be as a child's, still enthroned.

THE PATHOLOGY OF INSANITY.

The specific pathology of the different forms of insanity are not definitely ascertained, but this much we do know: the brain,

when the point of insanity has been reached, is always involved in disease either in its free surfaces, the convolutions and ventricles, or circulation. The cells of the grey matter of the convolutions are usually involved when insanity exists. Post-mortem examinations reveal the existence of cerebral lesion in most cases in the brain, and when they do not, they give evidence in the tortuosity and malformation of some of the cerebral vessels of ante-mortem vascular derangement sufficient to account for the mental impairment. Rockitausky, Virchow, Andral, Leidsdorf, Van der Kolk, and others, give us every variety of post-mortem cerebral appearance in insanity. Meningeal adhesions, embolic obstructions in the sinuses, ventricular effusions and thickenings, and adhesions, softenings and indurations, tumors, etc., etc., are familiar to all of us in derangement of the brain, but when insanity exists we may confidently expect to find, if our means of research are adequate, and we perform the labor with care and patience, some lesion of the cinvertious matter or ventricles, or evidences of some change in the normal quality, quantity or regularity of supply of the blood which nourished and sustained the brain during life by which the condition of the free cerebral surfaces, is changed from the healthy state.

We can not go further into the pathology of insanity, unless we conclude to write a book instead of an essay. We must let Leidsdorf, Van der Kolk and Gray supply what we omit.

A glance at the direct, or physical causes of insanity, so-called, but which often constitute the insanity itself, will add a little more light on the subject of its pathology, and we here introduce the prominent ones from our asylum report for 1871.

CAUSES OF INSANITY.

The immediate or direct causes of mental aberration are always within the system, and begin or end in the brain. They are physical causes, such as violence inflicted upon the brain, altering its structure, and tumors compressing the organ and interfering with the performance of its natural functions; inflammations accelerating the circulation of blood through the brain beyond the healthy maximum, and ending in fibrinous deposits, suppuration or softening; concussion of the brain, resulting from falls or blows, often in childhood, and overlooked or forgotten,

occasioning slight impairment of structure, in consequence of which in after life it is found incapable of sustaining the strain of life's duties, care and sorrows.

Irritation of the spine or any part of the nervous system, transmitted through nervous communication to the brain—a sciatica, a neuralgia or toothache, or rusty nail in the foot—may cause insanity. Disease of the glandular system, like scrofula; of the bony system, like caries, or of the blood, like the fevers and syphilis, may cause insanity.

Insanity may be caused by poisons introduced into the system. The poison of alcohol, tobacco, opium,* and other stimulants and narcotics, habitually used and daily coursing through the brain, disturbs its functions, first by irritation and eventually by permanent changes of structure and impairment of nutrition.

The same is true of the natural secretions when retained through defective action of the excretory organs. Retained bile, urea, carbon, etc., and many salts, are poisons to the blood and brain, and must be regularly carried out of the system, or they will react upon and derange it. Diseases, therefore, of the physical organs, the lungs, bowels, kidneys, liver and spleen, which carry off these poisonous elements, may cause insanity. Diseases of the heart, influencing the regularity of supply of blood sent to the brain, and of the stomach and lacteals influencing the quality of the blood, are among the most common direct causes of insanity.

The indirect causes of insanity are all those influences without the system which tend to impair the physical health, improper food, unhealthy telluric emanation, and atmospheric states affecting the blood, excessive joy or anger, sudden fright or surprise, sudden good or bad fortune, unrequited love, unsatisfied avarice, the eager restlessness of ambition, hopes unrealized, remorse for crime or sin, intense solicitude for the future, fear, sorrow, grief, dread, vicious indulgences and dissipations, deprivation of sleep and intense anxiety. Intense and unremitting

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* Opium produces *curious phenomena and trains* of ideas out of control of the will. * * * * I cannot say, however, that * * * * it has often been found to produce insanity.—Blandford, p. 81.

The abuse of wine, liquor and aromatic infusions of *opium* produce a great amount of insanity.—Esquirol, p. 41.

exercise of the brain, goading it to continued labor after the point of exhaustion has been reached, and rest is demanded for replacing the worn out nerve cells, is a common cause of insanity.

Another cause of insanity closely allied to this, is the long continued concentration of the mind in a particular direction without diversion, even though sleep be regular, by which certain faculties become inordinately active while others become dormant, thus disturbing the mental equilibrium, like the mad astronomer described by Dr. Johnson in his Rasselas, who studied the planets and their laws, until he thought he controlled them. The sun "listened to his dictates, the clouds at his call poured their waters, he regulated the weather and distributed the seasons."

He was a monomaniac. He had communed with the works and laws of God's universe, and had grown so familiar with them, that in a moment of egotistic transport he passed from the finite to infinite, and imagined himself like God in power.

TREATMENT OF INSANITY AND THE MEDICAL MANAGEMENT OF THE INSANE.

It would be impossible, in an essay like the present, to epitomize the treatment and management of the insane. In the majority of cases, the treatment can only be successfully conducted within a well-regulated asylum or hospital for the insane, removed from the locality of the causes of the patient's disease, and provided with such means of mental diversion, rest and restraint as these cases peculiarly require. Home, friends and kindred often become disagreeable to the patient, and the family physician sometimes peculiarly obnoxious. Under these circumstances a prompt change in the patient's surroundings affords the only chance of restoration, and if the patient be inclined to do violence to self or others, delay in removal to an asylum is dangerous and often fatal, and always culpable on the part of friends and medical advisor. But the general practitioner is frequently compelled to treat insanity, pending the determination of friends to remove the patient to the asylum, and there are some cases which the physician can restore in a month or two at home. Among them, some of the puerperal

manias, the milder melancholias, and cases in which no delusions exist in regard to family or friends at home.

Tractable cases, which take medicine readily, and who are so circumstanced that they may be constantly under observation, may safely be treated for a short time before the final alternative is adopted of sending them off to an asylum. But if decided improvement does not manifest itself within a brief period, say not over three months after the first symptoms of mental aberration have become manifest, the safest course would be to then commit to an asylum, even though no apparent evidence exists that the patient's surroundings serve to keep up his insanity. There are moral agencies for mental restoration to be found in the modern insane hospital, which we have not room to mention here, and which often cure where medicines have failed, or co-operate with remedies to facilitate the cure.

From what we have said respecting the nature of insanity, and the enumeration we have given of its causes, the general principles of treatment are obvious. Remove the probable causes and restore, as far as practicable, the physical health. If disease be detected anywhere, remove it by appropriate remedies, as in treating any other physical disorder.

A sound mind and a sound body go together. A perfectly healthy individual cannot become deranged in mind.

In the therapeutics of insanity there are no specifics. The nearest approach to a specific for insanity is sleep, and those hypnotics which induce sleep most naturally, such as bromide of potassium and chloral, are the best. The tranquilizing power of music may be made of great service in calming the mind diseased, likewise kind words, personal attentions, and such therapeutic placebos as may suggest themselves as agreeable to the patient, may be employed to advantage by the physician.

Anything for diversion from delusion and promotive of mental tranquility may be employed to advantage. A ride, a walk, a game suggested, or an entertaining anecdote opportunely related, are often as serviceable as the remedies of the materia medica. Psychical and physical agencies both play an important part in ministering to the mind diseased. The diseased brain may be reached through the mind, and the disordered mind may be controlled through the brain.

Insanity is generally the product of two generations, hence

the hereditary instability of nerve element peculiar to the insane temperament, has to be controlled by appropriate neurotic agents. A certain debilitated and irritable state of the nervous system, often accompanied with emaciation, has been generally observed by practical alienist physicians in asylums, in which sleeplessness, variable appetite and constipation are prominent characteristics. This state of the system requires laxatives, calmatives and the hæmatic and neurotic tonics, the different preparations of iron, and the various mineral salts to reconstruct the blood, are here indicated; and phosphoric acid and its salts, quinia, and the preparations of strychnia for the nervous system are needed.

Opium, lupulin, conium, hyosciamus, lacturarium, valerian, etc., as calmatives of the nervous system, have been superceded to a great extent by, or employed in combination with, the bromide of potassium and chloral.

Opium still holds its place, however, in certain forms of melancholia, and all these agents are still employed, according to the susceptibilities of particular patients and the views of particular physicians in certain cases.

In lieu of the warm body bath and the cold head douche, the general practitioner may succeed well in allaying a paroxysm of transitory excitement in a patient by applying an evaporating lotion of sulph. æther to the head, cooling the brain and suspending disintegration. In England they use the wet sheet to calm excitement.

Hoffman's anodyne, camphor, assafœdita, musk, etc., suggest themselves to the general practitioner as of peculiar service in recent hysterical forms of insanity, preparations of ergot, etc., in the choreac, and the bromide of potassium and ferro-cyanide of iron in the epileptic forms of insanity.

The dyspeptic insanities require, in addition to judicious exercise and diet, and agreeable mental impressions, a little wine and pepsin, or bismuth, "for the stomach's sake," and such other agencies as tend to restore healthy digestion.

If, through the temporary administration of alcoholic beverages or malt liquors, and opium, your hypochondriacal cases can be induced to "forget their poverty" of spirit, and "remember their misery no more," there is both scriptural and scientific warrant for the prescription. Strong drink cures as well as

causes insanity, but should be used with caution. It is most useful given at bedtime to promote sleep. Scarifications, setons and blisters have their use, though seldom employed in insanity. The indications for their use being the same with as without mental aberration, if the brain, or its meninges, be congested or inflamed. An emetic will sometimes abort an impending attack of melancholia, especially if followed by a prolonged sleep; and very recent and transitory delusions are sometimes dispelled by the counter-irritation of a blister down the spine, sufficient in extent to arouse the mind from its introspection and egoistic possession, and transfer its attention to the local pain.

Muriate of ammonia, says Draustie, is one of those commonplace and unattractive substances which we are little apt to credit with extensive remedial properties in disease, yet it is the most powerful of all functional restoratives of suspended bile secretion, especially in those cases where the disease is produced by severe and exhausting mental excitement. It is a pure tonic stimuant to the vaso-motor nerves and nerves of sensation.

I have found nothing superior to muriate of ammonia in insanity proceeding from or accompanied with phthisis, and in the general paralysis of the insane along with our nutrient course of treatment, it is as good as any remedy we can employ in these hopeless cases.

Electricity has a valuable place in the therapeutics of psychiatry, but precisely the place it ought to occupy as a remedial agent has not yet been definitely determined.* It is serviceable in those cases unaccompanied with great irritability and excitement, and may be given whenever strychnia is suggested. The general practitioner would have but little use for this remedy because the cases in which it is indicated have reached a stage when it were best that they be treated in an asylum.

The Turkish bath to open the pores of the skin, the tonic power of the spinal douche, and the tranquilizing influence of the sponge bath, are indicated in the early stages of insanity, as in other diseases.

From the testimony of other mental alienist physicians the

*Arnot concluded that the galvanic current acts very favorably in those cases of psychical disease in which the cerebral symptoms may be traced to vaso-motor disturbances, and in those cases where material changes have taken place in the brain.

croton chloral hydrate promises to prove more efficient, and in smaller doses than the simple chloral hydrate.

In a large proportion of cases of insanity mental improvement takes place along with the physical improvement. In anemic women, for example, with exhausting menstrual flow, the restoration of the uterus restores the mental equilibrium. The chief difficulty in these cases is to determine whether the morbid priority belongs to the uterus or to the nervous system. The general practitioner accustomed to overlook the insidious part played by the nervous system is apt to treat the womb alone, whereas both the organ in which the hemorrhage exists and the cerebro-spinal nervous system come in for our attention.

The better plan, however, where uterine derangement excites insanity, is to search in the family history for the taint of insanity or some kindred neurosis—and we seldom fail to find it—and continue our treatment with a view to reconstruction of the cerebro-spinal nervous system. It is rational to keep up the restorative measures addressed to the nervous system in order to insure against all *irrational* sequelæ. This course is especially indicated where mental derangement comes on and subsides with slight uterine hemorrhages and other disturbances of that organ.

In certain indubitably hyperemic cases the lancet is certainly demanded, but these cases seldom come under treatment. The cerebral congestion must be general to justify its use. I had but one such case at Fulton. He was struck on the head by a corn stock cutter and soon became a raving maniac, with flushed face and slow full pulse. I bled him copiously and administered veratrum viride freely. He made a quick and complete recovery and still lives, sound in mind and body, in one of the counties of this State.

Tinct. of digitalis and veratrum viride combined with tr. valerian can be made of great service when cardiac complication co-exists with or causes the insanity.

Combinations of tr. cannibis indica in thirty drop doses with thirty grain doses of bromide of potassium will often control cerebral excitement.

Chloral, twenty to thirty grains, may be safely combined with drachm doses of tr. hyosciamus and given to violently excited

cases. Twenty to sixty drops of fluid ext. of conium restrains the muscular restlessness of insanity.

The insane often require much larger proportionate doses than the sane. The quantity and frequency of repetition of a hypnotic or calmative for the insane, must be commensurate with the effect desired, as in delirium tremens.

Having already transcended the proper limits of an essay, I strike out some further reflections on the subject of the early treatment of insanity and conclude, reminding you that I promised only a cursory view of this extensive subject.

APPENDIX.

The following formulas have been for many years used by Dr. Gray, of the New York Asylum, at Utica, and having verified the value of similar prescriptions in insanity accompanied with tubercular exudation, or dependent upon defective nutrition and mal assimilation, and in all cases of great physical and nervous prostration, we reproduce them.

℞ Ol. Morrhuæ,* ℥viii.
Vit. Ovi, No II.
Acid Phos. Dilut., ℥ii.
Spt. Frumenti *vel* Vini Xerici, } qs. ut. ft. O j.

Or

℞ Ol. Morrhuæ, ℥viii.
Vit. Ovi, No. II.
Syr. Lacto-phos. Calcis, ℥ii.
Tr. Cinchonæ, *vel* T. Gentianæ, } qs. ut. ft. O j.

Fiat emulsio. Sig. Dose, tablespoonful after each meal.

* Glycerine may be substituted in these formulæ whenever the ol. morrhua disagrees with the stomach.

Five drops hydrocyanic acid may be added to each dose if there is active phthisis with profuse expectoration. Nux vomica and some cathartic may be added for constipation, and iodide of potassium if syphilis is a complication. Glycerine may be substituted for the oil morrhuæ where the stomach will not tolerate the latter, and wine of pepsine added for dyspepsia.

The arsenical solutions and the bitter tonics may here be advantageously employed, the *rationale* of the therapeutics of insanity for the general practitioner being to treat the morbid physical states to the best of his ability.

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Original Communications.

CASE OF RECTO-VESICO-VAGINAL FISTULA, WITH OBLITERATION OF URETHRA.

By A. M. POWELL, M. D., Collinsville, Ill.

Mrs. K., *æt.* 24, moderately well-developed and healthy, though with a pelvis somewhat narrowed antero-posteriorly, was taken in labor at full term at 6 o'clock on the evening of January 3d, 1874. In the absence of her family physician, Dr. H. L. Strong, I saw her at 9 o'clock. The membranes had prematurely ruptured, there being as yet little dilatation of os uteri. However, labor soon began in earnest, progressed slowly, but favorably, until midnight, when the head (being in the natural position, and fully engaged) ceased to advance. The patient, soon after becoming "demoralized" and discouraged, requested that Dr. Strong be again sent for, with direction to bring anesthetics.

Upon his arrival, we determined to await the fur-

ther efforts of nature, as the patient, although very restive and unruly, still showed no signs of exhaustion. This state of things continued until 2 P. M., twenty-four hours after the commencement of labor. The vertex was now presenting under the symphysis pubis, but as there had been no progress for some hours, and pains having ceased, we determined to deliver by instruments. The patient having been placed in the usual position and anesthetized, I proceeded with unusual facility, to apply the forceps, and completed the delivery in a few minutes, and with an exceedingly small amount of tractile effort. The patient was put to bed, remaining comfortable up to our visit next morning, with the exception of inability to evacuate the bladder. Considerable heat and tumefaction of the vulva were present. Dr. Strong now took charge of the case. He found it necessary to use the catheter for more than two weeks, and to adopt measures to combat a severe vulvitis and vaginitis.

At the end of a month from delivery, the Doctor requested me to again see the patient with him, stating his fears, from *indications that had just then, for the first time, made their appearance*, that there was both vesical and rectal fistula. A careful examination showed that his fears were too well grounded—discovering an opening into the *bas fond* of the bladder, large enough to admit the index finger to the first joint, and a transverse opening about ¾ of an inch in extent, 3 inches above the fourchette, through which fæcal matter was welling up. There was still such great tenderness and inflammation of the vagina, that it was with difficulty the examination could be made. Here was a deplorable state of affairs; but the patient and friends were made fully

acquainted with her condition and the only course left open for relief. Strict quiet in the horizontal position was enjoined; light, but nourishing liquid diet, and emolient enemata per vaginam were ordered, the bowels confined by opiates, to be moved not oftener than once a week, and then by injections; all this with the hope that the rectal fistula would heal without operative interference.

In an examination three weeks subsequently, we had the satisfaction of finding our hopes verified. The vaginitis having also subsided, we now determined to prepare for closing the vesical fistula. In exploring the parts to ascertain their exact condition, on attempting to introduce a catheter, I found to my utter surprise and chagrin, that the urethra had become *obliterated throughout one-third to one-half its extent*—the most careful exploration failing to discover any opening of the canal. Here was an accident that I had never seen alluded to in the books. It was plain that the long-continued pressure which had set up a violent degree of inflammatory action in the parts resulting in a solution of continuity of the vesico-vaginal walls, had, at the same time, produced adhesions in the urethral canal to the extent indicated. The questions now arose: "can the canal be safely restored? and if so, is there a probability that the patient will have control, through the sphincter, over this artificial urethra?"

Having submitted the case with these questions to an eminent surgeon, and his opinion being favorable, I proceeded to operate by introducing a bent probe through the fistula, drawing it forward until its point could be felt through the tissues, in the site of the urethra, then introducing a small trocar into the meatus

urinarius, I thrust it down against the point of the probe; when, these instruments being withdrawn, a Sims' block tin catheter was pushed forcibly into the bladder. This was retained *in situ,* only removing it once or twice a day for the purpose of cleansing, until the 12th day, when there was so much vesical tenesmus and suppuration, it was deemed advisable to remove it for a few days, merely introducing it each day for a few minutes, to prevent closure of the canal. At the end of a week from this time, suppuration had nearly ceased, and the catheter passing without trouble, the operation was deemed successful. Throughout this time, a portion of the urine had passed through the catheter and new canal, and it was now thought safe to proceed with the closure of the fistula, which I did on the 6th of May, after the method of Marion Sims. On the 17th of May, or 11 days after the operation, I removed the sutures, the fistula being firmly cicatrized, there not having been any appreciable leakage after the sutures were inserted. The patient has now, September 1st, almost completely regained control of the sphincter.

This case presents several points of peculiar interest.

The length of the labor would not ordinarily suffice for the production of such untoward results to the soft parts—and again the pressure was never violent, the expulsive pains at no time exhibiting an unwonted degree of force—the ease with which the head was extracted showing that a moderate expulsive effort would have accomplished the delivery. Ergot had been used, but the uterus had not responded to it. Could the use of the instruments be charged with the accident? We think not, since the most maladroit use of them could hardly have produced the lesions in those sites, seeing

that they were applied laterally as regards the pelvis (the vertex presenting at the symphysis pubis), and therefore remote from the lesions. With considerable experience in the use of the forceps, in no other case have I had less difficulty—yet here was a case in which it might have been possible by wiley schemes, to induce an ignorant jury to render a verdict of mal-practice. I am aware that some practitioners will censure us for a delayed use of the instruments; yet by all the ordinary rules, there was no indication for earlier action. And could the most prescient have foreseen the disaster?

As intimated elsewhere, I believe the continued pressure giving rise to a violent vaginitis, while it, at the same time, lowered to a degree, the vitality of the parts, is the true explanation of the lesions—that in other words, these were the results of ulcerative action; the length of time—one month—between delivery and the appearance of the fistula bearing out this view, and constituting, also, a point of interest in the case, since these accidents usually manifest themselves either immediately, or within a few days after delivery. Another point of strong interest in the case is, the urethral occlusion or obliteration, which, so far as I have been able to consult authorities, is unprecedented, and the operation for its restoration unique. The successful recovery of control over an artificially produced canal, and the self-closure of the rectal fistula, strongly illustrates those beautiful restorative powers of nature, which are at once the admiration and wonder of every thinking physician and surgeon.

INJECTION OF MORPHIA INTO A VEIN.

By R. W. Erwin, Bay City, Mich.

In the November number of this Journal, 1873, was published an article from me upon the "Use of the Hypodermic Syringe." It mentioned the usual mode of making the injections so as to escape the above accident. How far such directions are safe against the direct entrance of the remedial agent into the circulation, is shown by the unfortunate occurrence in my own person.

During a protracted illness from a poisoned wound in one of my hands, a few months before, the practice of hypodermic injections was continued daily, and at times repeated several times during the day and night. The ability to tolerate large doses without inconvenience was thus acquired. Since my recovery, the syringe has occasionally been called in requisition in gastric derangements, the effect always being prompt and decisive, and never unpleasant. It was on such an occasion that the experience here detailed, was desired. I submit it to the profession for the reasons: that greater caution may be observed in the operation, and because I have never seen the description of symptoms attendant upon such an accident, published.

The strength of the solution employed was three grains to the drachm, and the amount injected, one-third of a grain. The skin was pinched up in a fold and the point of the syringe slowly carried through it. I felt certain that a vein was entered, (this may be inferred whenever the point after having passed through

the skin touches a part which produces a burning pain) but rather than withdraw the nozzle, and suffer the pain of re-introduction, chose to push it onward with a view of transfixing the vessel. Unfortunately the farther wall was pushed along with the point, or else the direction of its calibre was in line with the nozzle. The resistance to the injection was much greater than natural. This, with the oozing of blood around the syringe at the puncture, and the development of symptoms about to be related, induced me to remove it. A spirt of blood followed its exit, and continued oozing for some little time.

Instantaneously on making the injection, allowing scarcely time for the observations, I was seized with a sudden and painful pressure in the back and basilar part of my brain. It was of awful intensity, and created such a terrible fulness, that I felt as if about to be overcome and rendered unconscious in the instant It was the development of agony, as if by lightning stroke, which grew so rapidly, that my power to resist it appeared as nothing. My eyes felt as if beyond my control, and the skin of my face stung as if pricked with innumerable needles. I do not think it occasioned fear—at least I felt no dread. Turning to a tumbler filled with cold water, I observed my face in a glass. It was flushed—eyes injected, with a palor of nose, and a discernible cyanotic hue of lips. The water was dashed in my face, then raising the window, I covered the back of my head and neck with snow. These applications checked, by the shock, the further increase of intensity, and though the distress was not relieved, control of my muscular system was restored. There had been an unsteadiness of muscular movement.

All these things were the work of but a few minutes, and as soon as I felt able to walk to a near drug store, I did so, where I obtained and drank about an ounce of whisky. It did not produce any appreciable effect. On returning to my office was detained above an hour. Through this time there was intense headache, limited to the cerebellar portion. Hyperæsthesia of the surface came on, at first with a sensation of soreness in the skin, increasing, till at length my flesh felt as if it had been flayed. It was followed by a severe rigor, lasting upward of an hour. Vomiting succeeded with the ejection of bilious matter. Four or five grains of quinine had been taken before the nervous chill, which, with the whisky, was all the medicines used during the severity of the attack. The vomiting was unusually severe, and though indications of purging were several times manifested, did not take place. At 10 P. M., about 7 hours after the accident, I repeated the injection with the effect of arresting vomiting, and relieving pain in the head in a great measure, and securing sleep.

At no time was there any disturbance of consciousness, except in the paroxysms of pain while vomiting. Then occasionally for a moment only, would I say things without rational connection, the hearing of them or the calling of my attention to them would arouse my will, and mental control be resumed. It was a very slight delirium. Respiration was not disturbed. During the shock, my pulse was very small and frequent. Had not my system possessed a toleration for the drug, the result might have been more grave. The *modus operandi* of this narcotic may be inferred with some certainty from the symptoms produced in the case.

Upon this point I will not speculate. Some plan for making the injection ought to be practiced that will insure against the possibility of the accident. It will not do that the ordinary method is rarely attended with harm. It should never occur. The safest plan known to us is one which I have adopted since the occurrence to myself. It consists in selecting the part most sparsely supplied with vessels, then gathering up a fold in the fingers, making sufficient pressure at the base to shut off the circulation, after which, slowly injecting the solution. The syringe is then removed, but the pressure is kept up, and only lessened gradually after one or two minutes. This procedure, even should a vein be punctured, will allow of such gradual admission of the drug as not to occasion serious trouble.

September 1st, 1874.

PUERPERAL PERITONITIS.

Read before the Louisiana Medical Society by VIRGIL A. WILLIS, M. D.

No case of confinement is exactly free from danger of an attack of peritonitis (no matter what season of the year or what manner of person) until after the *eighth day.* As to the *cause* of the disease, during gestation, the gravid uterus exerts constantly increasing pressure upon the adjacent parts commensurate with its increase in size; producing pressure on the intra pelvic peritoneum, and that reflected over the uterus; irritating the nerves and rendering the membrane very vascu-

lar and hypertrophied; at delivery, the pressure is increased for a longer or shorter period, when finally the fœtus is expelled, and the walls of the abdomen contract, the enlarged and irritated membrane is forced into folds, thus impeding the circulation by rendering the course of the vessels very tortuous, and in contracting, the membrane naturally thickens: thus is produced a peculiarly favorable condition for an attack of inflammation.

Nature has wisely provided a way by which this engorgement may be relieved, in the wasting which follows delivery, and in the determination of blood to the mammæ for the elaboration of milk. These wise provisions are ample under most circumstances, and under the perfect working of natural laws, everything goes on well. But just at this juncture, suppose there is exhibited a drastic purgative, which irritates and inflames the lower bowel, or there has been rough handling of the inner surface of the womb in detaching an adherent placenta; or by unskillful manipulation of the forceps, the mucous membrane be lacerated or contused, thus setting up inflammatory action that may extend to the peritoneum. Here is an obvious cause. But this is not all; the disease may be produced in another and quite different way, viz: the patient may be so imprudent as to bathe in cold water, or expose the surface to drafts of cold air—this last is, in my opinion by far the most frequent cause of the disease; it acts by constringing the capillaries of the skin, determining the blood to the viscera and their surroundings.

The peritoneum being in the condition above described, you readily perceive that this flux of blood cannot pass through the vessels freely, hence the first

step in inflammation is taken, and may pass beyond control, if not speedily arrested; also exposure to a cold damp atmosphere, may prove the exciting cause over a considerable area of territory at the same time, in which case it may become epidemic.

Contagion, as a cause, has a great many supporters, but in my opinion it never produces true puerperal peritonitis. Authors are cited who agree with the writer. Cruvelhier likens the uterus after delivery, to the stump of a limb after amputation, and contends that the disease is caused by the absorption of purulent fluid by the open uterine veins. Furguson bases his theory upon the same supposition as does also Rigby, while Ingleby and Locock believe the first impression to be made upon the nervous system. Neither of the above positions are in my judgment, tenable.

Omitting such symptoms as are common to other fevers or peritonitis, we may enumerate as diagnostic of the disease under consideration, pain, acute confined to the uterus and integuments immediately attached thereto, which in grave cases, may speedily extend to the entire peritoneum, which becomes exceedingly sensitive to the slightest jar or touch; nausea, if not vomiting, anxious expression, mental disturbance. Disease usually appears about sixty hours after delivery, pulse rising in frequency as the inflammation extends, bowels costive, patient lying on her back, knees drawn up.

Authors class another disease with the one under consideration, and call it a contagious variety. I believe, however, that the so-called contagious childbed fever is nothing more nor less than a malignant erysipelas, and rarely if ever occurs outside the lying-in hospitals.

It is contagious and communicable from one puerperal woman to another, and also to non-puerperal women, children and men. Some of the most eminent accoucheurs have cited numerous cases to prove, and do prove beyond the possibility of a doubt, that it is so. I refer in part to Gordon, Louder and Hull on Phlegmasia Dolens. (Page 246, *Medical Gazette*, August 25, 1843.)

Rigby (*Medical Gazette*, page 352) states that in one epidemic, at the general lying-in hospital, the child of every woman who died of the disease, perished of erysipelas, which run its course in a few hours.

Ramsbotham says that he has seen two instances of like nature occurring in the practice of a friend in one month. Hey, Clark, Armstrong, and many others might be cited.

Another disease mistaken for peritonitis, is *hidrosis.* It comes on later, generally about the eighth day; there is no abdominal tenderness, no pain, no flushed dingy cheek and sunken eye; and its onset is not marked by rigor. This is the disease that Cruvelhier and Furguson called peritonitis, and it is caused by absorption of purulent fluid by the uterine veins, the poisonous fluid being quickly carried to the heart and brain. We have the following train of symptoms: the woman is noticed to be quiet, and to speak in answer to questions in a fearful, hesitating, whispering voice; seems abstracted, muscular movements not involuntary, yet not fully under her control—for instance, in attempting to convey anything to the mouth, she may convey it to the chin or ear, or, if able to be up, may miss a chair in attempting to sit on it. Profuse sweating comes on soon, the skin feeling as if wet with soap and water,

an odor exhales from the body similar to newly turned earth, pulse irregular, flat and weak, feeling as if the artery was spread out. The lochia is profuse, greenish, thin and very offensive; uterus well contracted, not tender, no delirium, no cough, no pain in chest, no effusion into any of the cavities, no tympanitis. Diarrhœa is present from the first. Without making any complaint, the patient inevitably dies. No physician with whom I am acquainted claims to have cured a case; and I do not remember any author to have described it, except Ramsbotham.

Such other diseases as might be mistaken for peritonitis are, metritis, acute cellulitis, ovaritis and neuralgia, all of which are wanting in some of the prominent symptoms of the former, and a careful examination will not fail to distinguish them.

When we take into consideration that we are dealing with a violent disease, which, when fully extended, occupies 16 superficial feet of a highly vascular membrane, our prognosis should be guarded. A patient of robust constitution with acute pain, incompressible pulse, and flushed face, a case classed as thenic, our treatment would be actively antiphlogistic, including venesection.

After the bowels have been freely evacuated, I give

℞	Opii, gr.	i to iv.
	Calomel, gr.	i to ij.
	Potass. Chlor.,	gr.v to vi.

(according to urgency of symptoms, and toleration of the medicine) every two or three hours, at the same time I give tr. veratrum viridi often enough, and in sufficient quantity to keep the pulse below 100 per minute. Diet light. Hot turpentine stupes kept constantly on the bowels for the first two or three days,

followed by a large blister if there is any symptom of effusion. As the inflammatory symptoms subside, I substitute quinine for the other remedies, and modify the dose of opium, adding gradually a generous diet, and wine or brandy.

The above is the treatment I have found most satisfactory; of course it must be varied to suit each individual case.

CHOLERA EPIDEMIC, IN ST. LOUIS, IN 1873.

As early as May, (possibly in April,) we had indications of a tendency to bowel affections, although in that month but three deaths were reported at the office of the Board of Health, as caused by *cholera morbus.*

The time and exact location of the first case of cholera which occurred in St. Louis this year, cannot now be ascertained, as it was doubtless reported as a case of cholera morbus.* Our city authorities were active in furnishing disinfectants at the police stations, free of expense, to all unable or unwilling to pay.

In the month of June, bowel troubles became more prevalent, and 35 deaths from cholera morbus were reported to the Board of Health. This was at the time deemed a very large number of deaths from cholera

* Of course there is on record at our Health Office a first death from cholera in 1873, but how many of the deaths reported from Cholera Morbus prior to this case, were probably from Cholera cannot be ascertained now, with any degree of certainty.

morbus. As we were not aware that cholera morbus was ever commissioned to do any considerable amount killing, while cholera has persistently sustained its high pretentions in this regard, cutting down about one-half attacked in all countries, whatever treatment or obstacles interposed. In the month of July the mortality as published, reached the absurd number of 210 deaths from "cholera morbus." It now began to be suspected that the less alarming name of *cholera morbus* had been adopted to prevent disturbing trade; and it was generally conceded by medical men that we were passing a mild epidemic of cholera, which opinion received confirmation from the mortality report the following month of August, when 109 deaths from cholera morbus and 80 from cholera were reported. Septemtember reported 50 deaths from cholera morbus and 12 from cholera, after which the disease disappeared from the mortality reports.

Having passed through several epidemics of Asiatic cholera, particularly that of 1849, in this city, I felt sufficiently familiar with the disease to be certain that the disease designated "cholera morbus," last year in our mortality reports, was genuine cholera; and I have no doubt that the improved sanitary condition of the city, together with the universal custom of physicians, to make free use of disinfectants immediately on being called to visit a patient giving any indications of the disease, and the fear lest the epidemic should increase in severity, causing care on the part of citizens, helped to check the disease. However this may be, the disease passed over us lightly, and the present "heated term," although hotter than in 1873, and although our markets are filled with fruits, *often stale*, yet

it is rare to hear of a death from cholera morbus, and thus far, September 16th, no sporadic case of cholera has appeared on our health reports.

I did not keep a strict record of the cases of cholera treated during the season, but treated over twenty after the manner below reported. The general apprehension caused people to call a physician soon after the first symptoms appeared. I will report but one case which may be considered typical.

Mr. P., *æt.* 62 years, merchant, remained late at his store on 5th street, between Olive and Locust, actively employed until 11 o'clock, when he complained of feeling too tired to go to his dwelling on Pine street, between 11th and 12th. Having a bed in one of the upper stories over the store, he retired on that a little before 12 o'clock at night. At about 2 A. M., he was called up to the water closet which was in the building, hence the character of the stool was not known further than that it was "thin as water;" from this time until 6 o'clock in the morning, he had six more stools, all of the same character, during which time nothing had been taken, except a spoonful of brandy occasionally with the water he drank. He now, at 6 o'clock, vomited freely a liquid thin as water, after which he was so exhausted as to alarm his clerks who were with him, and who procured a carriage and removed him to his residence on Pine street as above. A few moments after his arrival about 6½ o'clock A. M., I saw him and the stool which had just passed him—which was copious and rice water in character; also the vomited matter was similar; skin cold, and covered with perspiration; no discharge of urine since his attack; cramps were slight, voice husky and feeble. The patient was placed

on a mattress, head low, extremities at once enveloped in flannels wrung out of hot mustard water, also the same were placed over the bowels and chest. Pounded ice, with a few drops of whisky was fed to him almost constantly, and twenty drops of the following recipe, commonly known as Hartshorn's mixture, was given every fifteen minutes, viz:—

℞	Chloroform,	ʒjss.
	Tr. Opii,	ʒjss.
	Tr. Camphor,	ʒjss.
	Arom. Spts. Ammonia,	ʒjss.
	Creosote,	gtt. iij.
	Oil Cinnamon,	gtt. viii.
	Spts. Vin. Gallici,	ʒij.

M. S. Dose, 20 drops every 10 or 15 minutes until relieved.

The mustard fomentations were kept up faithfully, and all the ice allowed that was desired.

The vomiting continued more or less for an hour; the intervals of relief being prolonged until it ceased; also but one discharge took place from the bowels after the first portion of medicine was taken. As a slight acid odor seemed to come from the vomited matter, *chalk* was added, five grains to each dose, until thirty grains had been taken. As the circulation improved (the pulse having been 60 and small) and the surface became warm, he was wiped dry and lightly covered with a blanket; no food allowed for twenty-four hours after the vomiting ceased, only ice and brandy, in small quantity, and not the slightest muscular effort permitted. Convalescence commenced about twelve hours after the attack, and about six hours after treatment was commenced.

Although I have had patients to die under the above method of treatment, I am confident my success has

been better with it than by the mercurial or any other method I have tried. I keep the medicine ready prepared, as it takes time to put it up, and particularly to get a clerk up at night to prepare it. The case I have reported was a well-to do merchant, living in a clean, healthy part of the city. The vessels receiving the dejections from his body were provided with disinfectants liberally. No other case occurred in the house or store where some ten or twelve clerks were employed; and I don't remember to have had a case during the season where a second case followed in the same family or house, except in one case where they used *water from a well* near the house, in a densely populated part of the city. On my first visit to this house, several of the family had premonitory symptoms. I warned them not to use the well water. They all recovered but the father, who thought it a mistake about the water and drank from the well, relapsed the third time, when he narrowly escaped death, but satisfied himself finally that it was the well water.

The following table shows the monthly mean temperature and rain fall during the period the disease lingered about the city:

May,	66.2	F.	quantity of rain,	3.91	inches.
June,	68.5	"	" "	5.24	"
July,	69.2	"	" "	5.88	"
Aug.,	68.9	"	" "	0.04	"

During the month of September, the disease disappeared from the city. The total number of deaths from cholera by the Board of Health published, was 92; total during the same time of cholera morbus was 395.

We notice in our Health Office's report concerning the cholera and cholera morbus, of last year, that the

disease first appeared at New Orleans, and soon after at Memphis, Nashville, and other cities south of St. Louis. The reporter claims that "a close investigation of the origin of the disease at New Orleans, shows that it originated in that city" (strange it should first appear on this continent in Canada if it may now originate in the Mississippi valley), which opinion does not seem to be shared by the editor of the New Orleans *Medical and Surgical Journal.*—(See September number, 1873, page 299.) "Whether the disease originated here, or was conveyed hither in vessels or clothing, it is not at this time possible to establish by the testimony of any known and incontrovertible facts. * * The negative fact that it cannot be shown in what manner cholera was brought here, is not sufficient to convince a belief in its domestic origin"

If it can be shown that cholera originates in the valley of the Mississippi as well as that of the Ganges, the opinions of sanitary scientists throughout the civilized world are in error, and their efforts to exclude the disease from Europe, are absurd, if not farcical.

The International Council just in session at Vienna, on this subject having unanimously agreed to its only origin being the valley of the Ganges, and having proposed certain precautions by land, and quarantine by sea, to confine the disease to as limited space as possible, where it is indigenous. What argument or evidence our Health Officer has so well authenticated and so conclusive, as to outweigh the combined opinions of the most eminent leaders in sanitary science in this country and abroad, does not yet appear.

Again, we are compelled to demur to the statement that cholera morbus was epidemic in St. Louis, in 1873,

at the time cholera prevailed. The cholera germ theory being generally received, we may concede a case to become dangerous or otherwise, as a larger or smaller dose is received, and the system has more or less power of toleration or resistance, to the poison. The case may appear one of simple diarrhœa, with or without vomiting. That such cases are as properly cholera, as a mild case of variola with a few pustules is a true case of variola, and not something else; hence the large number of deaths reported in 1873 as from *cholera morbus*, with a comparatively small number of deaths from cholera, we think should have been reversed, as cholera morbus simple we repeat has but little of the killing agent in it.* WM. S. EDGAR, M. D.

APHONIA OF ELEVEN YEARS DURATION, TREATED BY FARADIZATION.

By WM. PORTER, M. D.

Some months ago I met with the following case of aphonia, which is interesting because of its long duration and the speedy return of the voice under treatment.

Isaac H., a carpenter, aged 30, came to me with this history. His general health had always been good, and he had had no trouble with his voice until the winter of 1862. At that time he was in the army, and much ex-

* Since the above was in type we have procured from a reliable source the following figures as corresponding with the certificates of death by our physicians in 1873, deaths from Cholera 382, deaths from Cholera Morbus 147.

posed. One day after it had been more than usually wet and cold, to use his own words, "he caught cold in the throat." Hoarseness followed, and in 24 hours his voice was quite gone. His throat felt sore and stiff at the time, and he had some difficulty in swallowing; both these symptoms soon passed away. Since then he had never spoken aloud.

Patient was a strong, well-developed man, without any symptoms of nervousness or debility, such as are often found in cases of so-called "hysterical aphonia." Upon a laryngoscopic examination, I found a slight bilateral paralysis of the adductor muscles of the vocal cords, which was barely sufficient to produce aphonia—the cords moving when phonation was attempted—almost to the median line, leaving only a narrow space between them. The mucous membrane was of natural color, and there was no thickening or signs of recent inflammation.

The case seemed in every way a proper one for faradization. This was done by means of Stoehrer's induction apparatus and Mackenzie's electrode, and in this way an electric current was easily applied to the affected muscles. The first day the patient was able to make a distinct vocal sound, and after the second application the following day, phonation was completely restored. Since then, his voice has remained perfect.

From the history of this case, I have no doubt that the aphonia was produced in the first instance by catarrhal congestion, which affected the nervous supply of the adductor muscles of the cords; and after the congestion had disappeared, the nerve force was not sufficiently evolved to produce complete approximation.

It is interesting to note that although there had been no complete action of the parts for so long, there was no apparent atrophy of either the cords or muscles, and that such slight treatment was enough to relieve aphonia so persistent.

2223 Olive street.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

ST. LOUIS, May 9th, 1874.

Resuming the subject of bone surgery under consideration at a former meeting, Dr. Gregory remarked, a few years since I was called to a patient suffering from an injury about the shoulder. On examination I thought there was *a fracture*, but not being able to determine satisfactorily what bone, I called Dr. Pope in consultation. After a careful examination Dr. Pope pronounced it fracture of the neck of the scapula. So striking was the appearance of the adjacent parts that I had a plaster-of-Paris cast of it taken, and exhibit it annually to the medical classes, to show them the possible, and even probable existence of such a fracture.

It is reported of Sir Astley Cooper, that a somewhat similar case occurred in his practice—he pronounced it fracture of the neck of the scapula; but being somewhat in doubt as to the correctness of his diagnosis he begged of the patient the privilege of examining and dissecting the specimen, should the patient die before he did. Patient died first, Sir Astley finally secured the specimen, and on dissection found *fracture of the anatomical neck of the humerus.*

We can not call in question *the fact, for it is a fact*, that the ablest and most skillful surgeons have occasionally been in

doubt as to the exact lesion, in cases of injuries received in the vicinity of joints. The hip-joint is perhaps the subject of more uncertainty in this respect than any other joint in the body.

Let a man assume to be a surgeon, and after having examined and treated a multiplicity of cases he will eventually meet with one which he cannot fully comprehend. As a rule, the signs of fracture are clear enough, and yet *some* occur—all of us have met with such—where the evidences of fracture are extremely obscure. I would never boast of the fact that in a certain case I may have been more fortunate than a professional brother in ascertaining the true lesion, fracture or dislocation, least in the next instance *I* should be unfortunate in diagnosis. That surgeon does not live who does not fully appreciate the importance of the differential signs and symptoms between dislocation and fractures about the hip-joint.

I am in the habit of treating my patients for the trouble which I suspect to exist, whether it be dislocation or fracture, and at the same time if I am in doubt *as to* the correctness of my diagnosis I tell my patient and his friends the possibility of error in my diagnosis. I treat the case as if it were as bad as I think it can possibly be.

With reference to fractures of the skull, I will say, that in my early practice I used the trephine frequently, but *now* I am not near so ready to use that instrument, nor do I entertain half the anxiety about the result of such fractures as I did when I began the practice of surgery. I let them alone, unless they are deep and compound or impacted. When it is necessary to raise the fractured skull I usually do so without the use of the trephine. I avoid the use of that instrument as much as possible.

Dr. Dean exhibited specimens of animal and vegetable parasites infesting swine, beeves and chickens. In 1000 dressed hogs sold in the city markets, 13 or 1.3 per cent. were found infected by trichinæ. Of five hundred hogs examined for Rainey's bodies, or psorospermal sacks (*Synchytrium? Miescherianum*, Kuhn), vegetable parasites, etc., seven per cent. were found infected. In one hundred beeves three were infected. On an examination of rats caught about the slaughter houses *all* were found to contain trichinæ. Of eighteen hogs examined each had from six to eight hydatid cysts in its liver,

and some of them had cysts in other organs. These cysts contained millions of ecchinococci, and these livers were thrown away in reach of dogs. Almost every hog contained a large number of the round worm (*Ascaris lumbricoides*) infesting man; sometimes the intestine was almost completely obstructed by them. These hogs also contained a number of hollow worms (*Echinorhynchus Gigas*). These last worms hang by their hooks upon the intestinal walls. In a portion of intestine fifteen inches long, exhibited, there were a dozen worms. These worms sometimes penetrate the intestinal wall and pass into the peritoneal cavity. They have been found in man also. In one stage they live in the white grub or larva of the May-bug; and with these hosts are taken into the *primæ viæ* of the swine. In examining the hogs mentioned above, a large number of worms *Strongylus dentatus* were found in the pelvis of the kidneys, in the leaf-lard, etc., etc. These little worms are the same as those found in swine in Brazil and in Australia.

Dr. Dean gave an account of the literature concerning the last worm from Diesing to the present time. It is thought by some that these worms play an important part in the production of hog cholera. In the connective tissue under the skin of chickens he found white cysts, the size of pin's heads, containing apparently amorphous or anhistic matter. He did not yet know whether they were of animal or vegetable nature. In the pleuro-peritoneal cavity of the same fowls he found a large number of viviparous mites, the species of which he had not yet determined, apparently a Tyroglyphus. He also found one inside the pericardium, and some in the trachea. They were sometimes under the endothelium as itch mites are under the epithelium. Since this discovery he had found that Mr. Robertson, demonstrator of anatomy in the University of Oxford, in 1869, found somewhat different mites in the connective tissue under the skin, on the pericardium, and along the outside of the walls of the large blood vessels, in the pigeon. Col. Montague afterward found them in the gannet, and still later Mr. Robertson found them in the pelican. The pleuro-peritoneal cavity of most birds is connected by cellular cavities with the lungs, and some of the mites having closed air-sacks, respire by a kind of diosmosis. In the intestinal wall of the same fowl, Dr. Dean found cysts visible and removable through either the serous or

mucous side, and each contained a single larva (in one case two) of a nematoid or round-worm, which would appear to a superficial observer to be trichinæ, in the encysted or larval stage. This larva is, so far as he knew, hitherto unknown. These mites and worms he finds are common in the chickens of this market. A more complete description he postponed to another time or place. He wished to correct an error that occurred in the discussions before the Society; *trichiniasis* and *trichinosis* are synonyms for the trichinous affection in all its stages and do not designate respectively the disease when the trichinæ are in the muscles and when they are in the intestines. Vogel and Rupprecht designate three stages of trichinosis: first, that of *Ingression*, lasting about eight days to the beginning of the emigration of the embryos; second, the stage of *Digression*, when they wander in the muscles, lasting three to four weeks and passing into the third, or stage of *Regression*. In the meeting of January 31st, he intended to say that instead of two species of tape-worms there are more than twenty species in the order of Cestodes infesting man and domestic quadrupeds alone: more than two hundred and thirty species are known.

St. Louis, May 16th, 1874.

Dr. Gregory exhibited an enormous mammary tumor—weight 20 lbs.—which he had recently removed from a lady fifty-two years of age. Tumor was of malignant character. When first observed, fifteen months ago, it was a small lump in the breast about the size of a marble, her attention was then accidentally called to it, by touching it while dressing. It grew rapidly, in six months it was very large. Two physicians had advised its removal early last summer, while it was about one-third its present size. He was recently consulted by letter by her attending physician. In reply he addressed the physician three queries, viz: 1. Are there any glandular enlargements in the axilla? 2. Can the tumor be moved on its base? 3. Is the patient's general health good? Answers, viz: 1. None. 2. Easily. 3. Excellent. He then visited her and found the answers correct. The weight of the tumor was so great that the patient had to support it constantly on a pillow. Patient had determined to have it excised and was anxious for him to

operate. He advised her of the dangers of the operation. As the base of the tumor was twenty-one inches in circumference he would be compelled to expose a large surface. The tumor had already begun to fungate, and was very offensive. Other prominences could be seen on the surface, which would soon break through the skin. The tumor had not been examined microscopically, but he supposed it a malignant sarcoma rather than carcinoma, because the axillary glands were not involved. Pathologists have not been able to trace the lymphatics into the substance of sarcomas, as in carcinomas. Patient sustained no great shock by the operation, and at last accounts was doing well. He was assisted in the operation by Drs. Hawkins and Collins.

Dr. Hughes related a case of mammary scirrhus treated by him, the breast was excised, although the axillary and the submaxillary glands had become involved. At the end of twelve or eighteen months the disease reappeared in the bowels and patient died.

Dr. Gregory related another case from whom a part of the mamma had been removed four times in succession, and as often reappeared, at the fifth operation, the entire mamma was removed, laying bare the costal cartilages. Five operations were performed within a period of twelve months. The last wound healed kindly, patient's general health improved and she recovered, and now lives in good health. Three years have passed and no return of the tumor. Why did this tumor recur four times? Was it because the surgeon failed to remove all the tissue involved, or was it due to a local predisposition, I cannot say.

Dr. McPheeters—Do you believe in a specific cancer cell?

Dr. Gregory—No, sir, but I *do* believe in a specific cancer structure, a structure which is not analogous to any other structure found in the human body from the time of conception to the day of death.

Dr. Edgar remarked that a large majority of cancerous tumors occur in *females*, and that nine-tenths of this majority occur in the mammæ and uterus. The great changes to which both these organs are subject, their alternate enlargement and reduction, suggests the probability of cancer having a local rather than a constitutional origin. On this question the ablest

pathologists do not agree. When we apprehend cancer to be of local origin, of course it is best to remove such tumors early.

Dr. Keith exhibited a man who had lost his right arm and most of his left hand in a saw-mill. The saw lacerated the left hand in such a manner that amputation was performed through the metacarpal bones of all the fingers, removing two-thirds of each, but leaving the metacarpal bone of the thumb entire. To the stump the man had attached a small wooden block, against which the metacarpal bone of the thumb worked, the muscles of the first metacarpal bone enabled him to use the stump as an organ of prehension, to use the pen in writing, etc., making a useful member, in the absence of his right arm. This case illustrates the importance of the surgical rule. In injuries about the extremities to save every fraction possible. One of the surgeons in attendance advised the removal of the first metacarpal bone on a line with the others. Conservative surgery, however, had saved the man a useful member—a tolerably good hand.

Dr. Gregory remarked that this case reminded him of two cases of tetanus which recently occurred in his practice, each was the result of a lacerated wound of the hand. In one case he did not amputate the fingers—tetanus supervened and the patient died. The question was asked, "Had I amputated the fingers would not tetanus have been prevented?" He replied, lacerated wounds of the fingers and hands occur so frequently that if we yield to the notion that tetanus will result if amputation be not performed, that we would be cutting off fingers almost daily. He is decidedly in favor of conservative surgery. In reply to the query, what is the cause of tetanus? he said, I do not know, but I believe that exposure during the cold damp weather in spring time predisposed my patient to tetanus and to erysipelas, after sustaining laceration of the hand.

Dr. McPheeters—How many cases of traumatic tetanus have you known to recover?

Dr. Gregory—Several. If I had been asked this question ten years ago, I should have said *none*. But I now remember at least six cases in my own practice, and have heard of others in the practice of other physicians. With reference to treatment, I cannot say that much good resulted from the administration of *any* remedy. I used kali bromidi, chloral, arsenic, tr. canabis indica, without any apparent effect. I used calabar bean also,

and have no confidence whatever in it. I used tobacco freely in the treatment of one of the cases reported, keeping the back of the wounded hand in ambier. I am informed that a case of traumatic tetanus occurring in Dr. McDowell's practice recovered on the kali bromidi treatment alone. All cases of traumatic tetanus are not acute. If the patient live 8 or 10 days, there is a chance for his recovery. (I know of no death from idiopathic tetanus.) The chances for recovery increase very considerably after the lapse of one week. Tetanus generally occurs after the receipt of a trivial injury. I have known tetanus, acute, intense, and fatal, to supervene after the wound had healed. A little boy—Dr. Frazer's patient—was struck in the face with a bat, the wound healed, ten days afterward tetanus began and the boy died the next day. He then related an extraordinary case of tetanus occurring two years ago, a boy's arm had been twisted off at the elbow, the humerus of his other arm was fractured, both femurs were also fractured. He put the limbs up in plaster-of-Paris. Tetanus supervened on the tenth day, the boy lingered ten days longer and died.

Dr. Hughes considered milk punch and chloral good treatment in tetanus. One case in his practice had recovered on that treatment. He believed there was a predisposition to tetanus in certain persons. During the war, some surgeons met with tetanus frequently, while others never saw a case. He thought tetanus was remotely due to a hereditary nervous diathesis, connected with insanity.

Dr. Montgomery said that none of his cases of tetanus occurred in patients of nervous diathesis. One case, a strong, muscular Irishman, after receiving a slight contusion on the temple, exposed himself on a cold day, and tetanus and death ensued. Another fatal case occurred—the subject was a muscular man, and the opposite of what might be termed the nervous diathesis. In all these cases he used whisky, morphine and tr. canabis indica without effect. Another case, a large stout man, ran a nail into his hand in the winter time, paid no attention to the wound, and in 4 or 5 days he was attacked with tetanus. He bled him freely, and then gave him all the whisky he could drink—it was impossible to produce intoxication—he also gave arsenic and tr. canabis indica, this occurred before the introduction of chloral hydrate, the man recovered in two weeks. Dr. Montgomery

considers chloral and whisky in large quantities the best remedies at our command in the treatment of tetanus. They constitute his "stand by."

Dr. Enders reported a case of tetanus treated successfully by Prof. Gross. Treatment—opium, by the stomach, and morphia hypodermically.

Dr. Montgomery mentioned another case of tetanus, treated successfully by Dr. Barnes, Sr., with arsenic.

Dr. Kennard quoted from Dr. Gross as follows:—"During an extensive practice having met a large number of cases of tetanus, I never saw but *one case* recover. We all know that a large majority of the cases of traumatic tetanus die, that recovery is the exception." He related a case, patient's great toe had been so injured that he pronounced amputation necessary, it was delayed, patient was transferred to the care of another physician, who opposed amputation. The toe sloughed and tetanus supervened, but patient finally recovered. Another case of traumatic tetanus was caused by the rubbing of a shoe, giving rise to the formation of an abscess over the joint of great toe; abscess was opened and calabar bean administered, but patient died of tetanus. He mentioned another fatal case of tetanus caused by fracture of the vault of the skull. He regards idiopathic tetanus as a self-limiting disease.

Dr. Warren Stone, of New Orleans, held this opinion.

Society adjourned.

St. Louis, May 30th, 1874.

Dr. Rumbold exhibited a pathological specimen, the anterior lip of an os uteri, recently removed by Dr. Prince, of Illinois, by means of the galvano-cautery. The operation was completed in 22 minutes, and was bloodless and almost painless (he witnessed the operation)—no change being observed in the patient's pulse either during or after the operation. He mentioned some of the advantages of the galvano-cautery, viz., no hemorrhage; no pain; the ability to burn out deeply seated parts not so accessible to the knife; inflammation is not so likely to follow as when the knife is used. Dr. Rumbold also witnessed the excision of a large portion of the scrotum for the relief of variocele, and an operation for cleft palate by Dr. Prince, by means of his battery.

He mentioned Dr. Prince's battery of 250 cells, as the largest and most powerful in the United States. He referred to the peculiar *modus operandi* adopted by Dr. Prince in excising the *cervix uteri*, a method peculiarly his own. [For description and cut of which see the June number of this JOURNAL.]

Dr. Keith reported a case of puerperal metro-peritonitis, showing the insidiousness of the attack, the rapidity of its course and its relationship to erysipelatous complications. The question of the contagious character of puerperal diseases and of erysipelas was discussed. By some coincidence, due to atmospheric conditions or epidemic influences, his patient had both metro-peritonitis, and erysipelas of the hand and arm. He mentioned as an instance of such coincidence, the fact that it had been observed during the prevalence of an epidemic of purulent infection or erysipelas among cases in Nelaton's surgical wards, almost every woman in Dubois' ward for the lying-in was attacked with puerperal metritis, and a great number of them died. Could not the same atmospheric condition which caused the former be also productive of the latter? We all regard and treat erysipelas as a blood disease, having a strong tendency to localize itself on *the skin*, and occasionally extending to a *mucous* membrane, which is but an extension of the skin,—while peritonitis we know to be an inflammatory affection of a *serous* membrane. Why then affirm, as some have done, that the mere existence of the one will give rise to the other?—that the *materies morbi* of both are identical? May we not satisfactorily explain the co-existence of the two diseases, viz.: When that peculiar atmospheric influence which is known to be productive of erysipelas is prevailing, parturient women are exposed to it in the same manner, and to the same extent, as patients on whom surgical operations have been performed; after parturition the womb is in a pathological condition, it has thrown off the large mass of the placenta, leaving a bleeding surface, requiring a sort of healing process, and requiring also a process of *the most active absorption*, in order to reduce the womb from its post-partum weight of 1½ lbs., to its non-gravid weight of two and a half ounces. In this condition, the uterus has with propriety been compared to a bleeding stump. The epidemic poison of erysipelas may, therefore, first attack this wounded surface, as it does an amputated limb, and transmitting itself by contiguity of tis-

sue may be carried to the peritoneal covering of the womb, and along the Fallopian tubes, to other portions of the abdominal lining.

During the prevalence of an epidemic of erysipelas or puerperal metritis, I would give my parturient patient the advantage of prophylactic treatment, small doses (two grains) of quinia, 3 times daily for 10 days previous to her confinement, and continue it for a week after delivery. After the accoucheur has attended two cases of midwifery, in each of which violent metritis has ensued, let him desist for a time from obstetrical practice.

Dr. Ad. Green remarked that many cases of puerperal fever occur sporadically, some are due to a septic poison, others to inoculation, by means of the accoucheur's instruments. Atmospheric conditions, doubtless cause many cases of it. His treatment consists in quinia and morphia.

Dr. Kueckelhan stated that mucous membranes are subject to three kinds of inflammation, catarrhal, croupous, and diphtheritic. The mucous membrane of the uterus may be entirely destroyed in childbed fever. Puerperal fever is due to fungi. It is a specific or zymotic fever, and is highly contagious. It may give rise to a consecutive erysipelas. Men may have a similar inflammation, the husband may be attacked with a croupous or catarrhal inflammation of the throat at the time his wife is suffering from puerperal metritis. His treatment consists in antizymotic and anti-parasitic remedies, quinia, iron, arsenic, etc. It is an aplastic inflammation, and a dangerous disease. Inflammation is generally considered to be a burning up process, but in my opinion it is directly the opposite process. Life and not inflammation is a burning up process. Life has aptly been compared to a furnace, to which we furnish fuel for three-score years and ten, and when the fire in the furnace dies out for the want of fuel, and the lamp of life grows dim and flickers away for want of oil, we call that death. Inflammation on the contrary is an interference with—a stoppage of that burning up process, which we denominate life. In inflammation it is notoriously true that *heat* and pain are frequently absent.

Dr. Edgar remarked that puerperal fever had *two* causes, at least, traumatic, and zymotic. Puerperal metritis due to the first cause is not transmissable—not contagious; but if due to the second cause, it is highly contagious. He mentioned an instance

in which the accoucheur shaved, cut off his hair, took a Turkish bath, and donned an entirely new suit of clothes before visiting a second case of labor, and yet his patient was attacked with puerperal fever. Under the head of traumatic causes, he mentioned violent or severe pressure over the region of the uterus, after delivery of the child, in order to expel the placenta. He opposed the use of pressure for that purpose.

Dr. Thomas Scott said, puerperal fever may arise from a variety of causes. He related a fatal case due to mental emotion as he thought. No evidence whatever of contagion existed in the case. It was as well marked and as well developed a case of puerperal metritis as he ever met.

Dr. Hughes thought mental emotion inadequate to produce puerperal fever. He therefore doubted Dr. Scott's theory. In his opinion some latent cause existed, beyond mere mental excitement.

Dr. Hodgen reported a case of traumatic aneurism of the posterior tibal artery, (due to a gun-shot wound,) on which he had recently operated. He first applied pressure, using the tourniquet, but was unsuccessful at his first effort. He then operated by cutting into the cyst, twining out the clot and tying the artery. He adopted Esmarch's plan for bloodless operations. The tissues were divided, so far as bleeding is concerned, almost as readily as on the cadaver, there being neither blood nor the constant dabbing of sponges into the wound to remove it, to interfere with the surgeon's sight. No bad results follow the use of the apparatus, the usual operations for the ligation of arteries are bloody, and patients, as a rule, can ill afford a serious loss of blood.

Society adjourned.

ST. LOUIS, June 6th, 1874.

Dr. Buck reported a case of chorea in a child under five years of age, belonging to a healthy family, in which no evidence of hereditary transmission could be discovered—no other member of the family having been afflicted with paralysis, epilepsy, chorea, insanity, or other nervous affection. He thought the disease due to the fact that the child had been associating in play with a mute, and frightened by him. He advised the

family to remove to another part of the city. During the past month he had used the following remedies, cimicifuga racemosa, tr. valerian, nux vomica, Fowler's solution, chloral, kali bromidi, besides anthelmintics and purgatives. He could observe no improvement. Child's general health was good. He was anxious to hear suggestions from other members.

Dr. Coles said: "Several years ago I read a monograph by Dr. Rogers, of France, on the subject of chorea, in which the author stated that the rheumatic diathesis is generally, if not always present in chorea, and that on examination of the heart, a cardiac murmur can generally be detected. I have observed the presence of this cardiac murmur in several cases of chorea examined since reading that book. I consider the murmur due to the anæmic condition of the patient and not to any organic lesion of the heart. I never met with a case of chorea in one so young—under five years of age. Chorea is more liable to occur about the time of the advent of second dentition, say from six to ten years of age." He related the following case: a child seven years of age was sick in a distant State, the attending physician informed him that the child was suffering from chorea and that he was treating him accordingly. Child's symptoms, he found on visiting him, were loss of courage, night-terrors, he was exceedingly nervous and afraid to sleep in a dark room. On examination he found the child was cutting three or four teeth. After the teeth came entirely through, all the symptoms rapidly disappeared. Chorea is apt to occur just at this period in the life of all children. In chorea the indications are to improve the general health of the patient by the administration of tonics, quinia, iron, etc., they nearly all get well after awhile.

Dr. Keith thought Dr. Buck had not given any of the remedies mentioned, ample time. His treatment of chorea was exercise in the open air, with tonics and antispasmodics. If patient be a girl old enough, let her sweep or churn and in this way endeavor to control the spasmodic action. The administration of kali bromidi in gr. xx doses three times daily together with quinia, reduced iron and valerianate of zinc had been successful in the treatment of all cases at City Hospital, in from two to six months.

Dr. Enders reported the following case of epistaxis as an

illustration of the hereditary transmission of disease. Patient was the fourth son. Three brothers had died of epistaxis. Treatment consisted in cold applications, plugging the anterior and posterior nares, styptics and tonics, quinia, iron, arsenic, etc. Patient lingered three months and died. He did not believe, however, that he died of anæmia. The only apparent lesion was enlargement of the spleen.

Dr. Bates reported a death from hemorrhage. Patient, a boy, received a trivial injury about the forehead, all his efforts to stop the hemorrhage proved inefficient and temporary, child lingered four weeks and died. *Three brothers, three uncles, a grandfather and two great uncles had died of hemorrhage.* This was a marked illustration of hereditary transmission. In the family referred to, the girls were exempt, the boys only being affected.

Society adjourned.

ST. LOUIS, June 20th, 1874.

Dr. J. M. Scott reported a case of poisoning from the *rus toxicodendron*, successfully treated by the local application of an aqueous solution of hydr. bichlor. to the face, arms, hands, etc.—Dr. Eberle's favorite treatment. Patient had not been exposed to the poison vine, but had received a bouquet from a friend in the country: she had been poisoned by beautiful flowers. He had never heard of a similar case, hence he reported this. What particular flower caused the eruption?

Dr. Kennard thought the symptoms described by Dr. Scott somewhat resembled urticaria, and that the woman probably suffered from an obstinate attack of urticaria. After a patient has been once poisoned by the poison oak, the disease is apt to recur every spring or summer for several years. Such persons are exceedingly susceptible to the poison, if they pass near the vine the disease reappears, the eruption breaks out and they swell up. He related a case of poisoning by the *rus toxicodendron* which closely resembled a slight case of psoriasis. It usually lasts six or seven weeks unless treated.

Dr. Dalton read a brief paper on the treatment of hemorrhages in general and menorrhagia in particular. In the treatment of menorrhagia he recommended opium internally in doses of gr. ij, to quiet nervous agitation and restore the equilibrium of

the circulation. He also recommended the application of sinapisms and dry heat to the extremities, but not the warm pediluvia. In passive hemorrhage he recommended spts. terebinth as highly efficacious in his hands, used in dessertspoonful doses. It is prompt in its action, controlling alarming uterine hemorrhage in a few minutes. He also used turpentine in his treatment of dysentery, the emulsio terebinth is excellent, it acts satisfactorily also in the treatment of pneumonia, where there is muco-purulent obstruction of the bronchiæ in very feeble patients.

Dr. Dalton also read a brief paper on the local treatment of diphtheria. In diphtheria, the exudation depends on a parasitic fungus which is best dislodged by parasiticide remedies. It is difficult to penetrate and remove the exudation by applying arg. nit. in solution. The whalebone probangs are not stiff enough to admit of the force necessary to sponge out the throat and remove the false membrane. He uses a sponge the size of a nutmeg, tied to a small stiff stick, and dips it into a mixture of carbolic acid, honey and water, or tr. ferri mur., honey and water, thrusts it over the tongue to the back of the pharynx and quickly turns it around three or four times, and remove it. This is done once daily. His formula is

℞ Honey and water, āā ℥j.
Carbolic acid, gtt. xx-xxx.

Sometimes stronger. Another formula is

℞ Honey and tr. ferri mur. equal parts.

Again,—

℞ Honey and water, āā ℥j.
Tr. ferri mur., ℥ij.

Constitutional treatment consists in quinia and tr. ferri mur., with milk diet, *ad libitum*. He uses the same constitutional treatment, and the same local applications reduced in strength, in treating scarlatina.

Dr. Kennard considered Dr. Dalton's treatment of diphtheria barbarous,—too severe entirely. *His* local application in diphtheria consists of *oil of sassafras* applied with a fine camel's hair pencil, with a curved handle, or the oil of turpentine, two or three times daily. This application will soon relieve the throat affection. Constitutional treatment, quinia, iron, etc., is absolu-

tely necessary. In his opinion there can be no doubt of the contagious character of diphtheria, to confirm this statement he mentioned several cases as illustrations. One man after being treated six months for diphtheria in New York, and discharged well, communicated that disease to persons in the same car, on his route to St. Louis, and to others in Dr. Kennard's family after his arrival here, for he still had nasal diphtheria.

Dr. Bates was inclined to doubt the contagious character of diphtheria *because of the general good health and longevity of homœopathic doctors* who are frequently called to attend such cases.

Dr. Stevens said, diphtheria is more manifestly contagious than epidemic. He favored both local and constitutional treatment, quinia especially. We may remove the false membrane of diphtheria and pseudo-membranous croup, from the fauces, pharynx, etc., but we cannot remove it from the trachea and minute bronchiæ and air cells, for it extends to the air cells. He opposed Dr. Dalton's treatment as being too rough, the probang, hair pencil or the spray are much more mild and doubtless equally as efficient.

Dr. Johnston favored constitutional treatment in every case of diphtheria. He gave quinia in large doses and used kali chlor. internally and as a gargle.

Dr. Leffingwell used constitutional remedies in every case and applied ice locally, together with sol. acidi carbolici with the spray.

Dr. Rumbold stated that the spray apparatus had long since displaced the probang and the camel's hair pencil in his practice. The spray is far more efficient in its application reaching every crease and corner of the pharynx, the epiglottis, naso-pharyngeal space, etc. The probang produces contraction of the constrictor muscles of the pharynx and its application is necessarily incomplete. He can remove *every particle* of the false membrane with the spray. Instead of being frightened by the apparatus, after the first or second application, children are anxious for it, and their mothers beg him to let them use the apparatus in his absence. He uses a solution of acid carbolic as *the* remedy, with the spray. A solution of tr. ferri mur., one part to four parts honey or water, is excellent. Tr. ferri mur. as a local application acts better with honey than with either sugar

or glycerine. He uses the same applications to the throat in measles and scarlatina. He also uses quinia gr. i-ij every three hours. He never uses kali chlor. locally, he has seen its application produce pharyngitis.

Dr. Edgar would not remove the false membrane unless observed detached, least he do violence to the tender membrane beneath, particularly as where it was most harmful it could not be reached. He preferred the spray in his local treatment of diphtheria but depended chiefly on constitutional remedies.

Dr. Hughes and Dr. Green both favored constitutional remedies in the treatment of diphtheria, as both regarded it clearly a constitutional and contagious disease.

Society adjourned.

CLAYTON KEITH, M. D., *Rec. Sec'y.*

Reviews and Bibliographical Notices.

We bespeak for the "*Archives of Electrology and Neurology,*" the first number of which has been received, a hearty welcome.

Specialisms have become so important in medicine, and are extending so beneficially into its various departments, that journals devoted exclusively to their interests have become a necessity, especially where the advance is so rapid, and the developments so marked, as they have been in the fields of electricity and of the neuroses. Since the former has been rescued from the hands of charlatans, and given a permanent footing in the profession, not only is there an increase of interest in it, but valuable results have been obtained, precursors of great good yet to come out of it.

A feature of this Journal is the large amount of new matter therein contained, original communications making up the bulk of the work. It is to be issued semi-annually, edited by Geo. M. Beard, M.D., whose indefatigable industry in the past, assures the success of this new and deserving applicant for professional patronage. S.

"ARCHIVES OF OPHTHALMOLOGY AND OTOLOGY." New York: Wm. Wood & Co., 27 Great Jones street. Terms $5.00 per annum.

The spirit of enterprise on the part of its founders that inaugurated the "Archives" is worthy of the highest commendation, and the distinguished ability with which it has for five years been conducted has achieved for it a merited name and authority, second to none in the medical world; it should therefore find instant place on the table, not only of the votaries of these specialities, but also of every general practitioner who is not content at any period of his success to recline upon his laurels. Its conversion from a *biennial* to a *quarterly* will fulfill the universal desire. With the present number it enters upon its fourth volume. It is wonderful to note the rapidity with which in all directions the confines of these specialities have been extended during these latter years. The amount of literature which they now include is almost as voluminous as was that of the entire accepted range of Medicine and Surgery when first we entered upon our professional career. But we must not tarry in the vestibule of this notice, indulging in general reflections, though the opportunity and field is most inviting. The present number, vol. IV., No. 1, is a real argosy of *special* literature, achievement enough will it be if its successors shall equal it in excellence.

Art. 1, by Drs. H. Knapp, and Ch. S. Turnbull, of New York, and Art. 2, by Dr. J. Thompson, of Indianapolis, and Dr. H. Knapp, of New York, on "Retinal Gliomata" constitute a valuable supplement to the extended monograph on "Intra-Ocular Tumors," by the latter, published in 1869. The cases reported we have perused with increased interest, on account of having recently seen three cases almost identical in origin, progress and termination. Several plates, in illustration, add much to the practical value of the articles alluded to.

Art. 3 narrates cases presenting certain peculiarities assumed by "Sarcoma of the Choroid," illustrated by a lithographic plate and intelligently described, occurring in the practice of Dr. S. C. Ayres. To it is added the anatomical examination of the specimens by Dr. H. Knapp, of New York.

Art. 4 is an analysis and description by Dr. H. Knapp, of three cases of "diplopia," dependent upon the paretic or paralytic condition of the ocular muscles congenital or acquired.

The mode of rectification by tentative section of the several muscles successively as required, in order to secure single vision, is given with admirable precision and intelligence. We have vivid recollections of the clinical lectures of Prof. Gräfe, in demonstration of these anomalies, and of a like mode for their correction. If the dynamics of each muscle singly or in their combination were more carefully considered, the pathogeny of this affection would be greatly illuminated, and the avenue to the solution of many obscure phenomena associated with it would be found.

Art. 5 contains a narrative by Dr. Landsberg, of Elberfeld, of cases of clinical interest, of which two are of "embolisms of the retina," with treatment, chiefly by depletion, by the Heurteloupe leech, followed by considerable improvement.

Art. 6 presents a new ophthalmoscope, by H. Knapp. It consists of a circular disc perforated with twenty-four holes near its periphery, and secured at its centre to the staff of the ordinary instrument in such manner, that by its simple rotation with the finger, each hole is made to correspond in position with the central aperture of the mirror. One of these holes is empty, eleven are furnished with convex glasses of different foci, ranging from three to forty-eight inches, and the remaining twelve with concave glasses with foci also ranging two to forty-eight inches. We think this new instrument combines all the essentials of a perfect instrument.

Art. 7 is a case of "paresis of accommodation," by Dr. A. Schapringer, of New York.

Art. 8 is by Dr. T. R. Pooley, of New York, descriptive of three cases of "keratitis vesiculosa" followed by secondary glaucoma. The first case occurred in the practice of Prof. Gräfe, the secondary affection by him being regarded as accidental; the second case occurred to Dr. Sæmisch, and the third to the author. Each of the latter consider the corneal affection the prime, potential factor in determining the glaucomatous process.

Art. 9 is a historical note concerning the physiology of the cochlea by Dr. A. Schapringer, of New York. In it we find a fresh verification by the declaration of the "Preacher" that "there is nothing new under the sun." For, if the hypothesis of "Hensen Hall" be confirmed, *i. e.*, that the shortest fibres

of the membrana basilaris respond to the highest tones and the remaining ones, which increase in length as we ascend to the cupola, correspond to the lower ones—it will be but the repetition and confirmation of the same hypothesis suggested by Du Verney, two hundred years ago.

Art. 10 is the relation, by R. Wreden, of a remarkable case of "phlebitis," involving in succession the right transverse sinus, the superior longitudinal sinus, the left transverse sinus, and finally the right cavernous sinus, with inflammation of the right and also of the left internal jugular vein, as the sequel of an attack of otitis media acuta wantonly neglected.

Art. 11. In this paper Dr. Oscar Wolf, of Frankfort-on-the-Main, details new modes of investigating the derangements of hearing by the employment of the human voice, to which are added practical observations embraced in the domain of "Acoustics."

Art. 12 is an article by R. Wreden, of St. Petersburg, Russia, describing fungous growths, to which the ear is subject, belonging to the two forms of *Aspergillus*, viz.: *A. flavescens* and *A. nigricans*, to which he adds a third form, differing in some of its characteristics from the former. Honorable reference in the same department of investigation is made to Dr. J. Orne Greene, and Clarence J. Blake, of Boston, and others, while the writings of others he critizes with scalpel acerbity superadded to logical acumen. The article though long, comprising 34 pages, is still very interesting, and will well repay perusal.

Art. 13 is a narrative of a case by Dr. Chas. H. Burnett, of similiar character as the preceding.

The last communication is Art. 14, reporting a case of Pearly Tumor (Cholesteatomata), in both ears, by Chas. J. Kipp, of Newark, N. J. To these is subjoined, under the captions of "Otological Review," and "Ophthalmological Review," a succinct compend and review of the most recent literature appertaining to these departments of surgery. This entire number of the "Archives," comprises *one hundred and sixty pages* of matter printed in clear type, and on thick paper, and the aid of the photographer and lithographer have been successfully invoked to render this quarterly as near perfection as possible. D.

THE PHYSIOLOGY OF MAN; Designed to Represent the Existing State of Physiological Science, as Applied to the Functions of the Human Body. By Austin Flint, Jr., M. D. In Five Volumes. New York: D. Appleton & Co. 8vo. pp. 517. Price, cloth, $4.50.

Vol. I, of this great work treats of the blood, circulation, respiration.

Vol. II, Alimentation, digestion, absorption, lymph, and chyle.

Vol. III, Secretion, excretion, ductless glands, nutrition, animal heat, movements, voice and speech.

Vol. IV, The nervous systems, and

Vol. V (with a general index to the five volumes), Special senses and generation. To complete these labors and place before the profession an exhaustive treatise on each of the above themes, has taken eleven years devoted to careful research for the facts and opinions of his contemporaries, and in submitting the same to the tests of experiment and personal observation.

In this fifth volume the first chapter treats of the sense of touch, muscular sense and sensibility, the tactile corpuscles, and the venereal sense.

The second chapter takes up the olfactory nerves, their anatomy and physiology, and their relations to the sense of smelling and tasting.

Chapters III, IV, V, and VI, are devoted to the optic nerves, the anatomy of the eye, refraction, vision, the functions and mechanism of the iris, the muscles of the eyeball and eyelids, the lachrymal apparatus, etc.

Chapters VII, VIII, and IX, deal with the auditory nerves and the sense of hearing in all its relations, including the physics of sound, the appreciation of harmony, discord, etc. This necessarily requires a full consideration of the anatomy and physiology of the various parts of the auditory apparatus.

Chapter X is devoted to gustation and the nerves of taste, the tongue and its functions, facial paralysis, etc.

In Chapter XI, the author opens the subject of generation with a general view of the female sexual organs, the ovaries, Fallopian tubes, uterus, and the erectile tissue concerned.

Chapter XII treats of the ovum and ovulation, puberty and menstruation, changes in the pregnant uterus, the corpus luteum, etc.

Chapter XIII gives a full account of the male organs of generation, the testicles and their secretion, the glands of the urethra, and the changes in these organs from infancy to old age.

Chapter XIV is on fecundation, the part of the male and female in the reproductive process, the entrance and destination of spermatozoids, the influence of the maternal mind on offspring, etc.

Chapter XV treats of the segmentation of the vitellus and formation of the membranes and placenta.

Chapter XVI, of the development of the embryon, and the osseous, muscular, cutaneous, and nervous system.

Chapter XVII, of the development of the alimentary system, the respiratory system, and the face.

Chapter XVIII, of the development of the genito-urinary organs in both sexes, and of the circulatory system.

The work closes (Chapter XIX) with an admirable view of the subject of fœtal life, a consideration of development after birth, maturity, the decay of age, death, and the resolution of the body into its original elements.

It is not too much to say of Dr. Flint's complete work that it stands alone as a comprehensive treatise on human physiology, and that its publication marks an epoch in medical literature.

ESSAYS ON CONSERVATIVE MEDICINE AND KINDRED TOPICS. By Austin Flint, M. D., Prof. Practice of Medicine, etc., Bellevue Hospital Medical College. Philadelphia: Henry C. Lea. 1874.

(For Sale by Gray, Baker & Co.)

If we may judge other doctors by ourselves (a good, general rule), the members of the profession are greatly obliged to Dr. Flint for the re-publication of these essays in form convenient to obtain and refer to. Few essays on medical topics are worth publishing that will not bear a second careful reading; and those who did not take or see all the different journals in which they first appeared, have their chances in the resurrection. It is too often the case that valuable contributions to practical medicine are crowded back with the ever teeming press of new matter, though it be of less importance than that which is obscured by it. The topics included in this volume are, conservative medicine; conservative medicine as applied to therapeutics;

conservative medicine as applied to hygiene; medicine in the past, the present, and the future; alimentation in disease; tolerance of disease; on the agency of the mind in etiology, prophyalaxis and therapeutics; divine design as exemplified in the natural history of diseases. This enterprise must prove remunerative.

MATERIA MEDICA. For the Use of Students. By John B. Biddle, M. D. Sixth edition, revised and enlarged, with illustrations. 8vo. pp. 435. Philadelphia: Lindsay & Blakiston. 1874.

[For sale by Gray, Baker & Co.]

The fifth edition being entirely exhausted in one year is quite satisfactory evidence of its popularity. One thing that particularly recommends this work to medical students is, that the book is not so large as to discourage and cause him to feel that it is impossible for him to get over it and so much else in the short time before him.

Only the most important articles in general use in the United States are considered—what every teacher feels desirous his class should know *and must know* before they presume to write prescriptions. The work is furnished with an *Appendix* of signs and abbreviations used in prescriptions; also a table of antidotes, comprising neurotic poisons, corrosive poisons, and irritant poisons, together with a copious index for easy reference. The illustrations are good, and the publishers' part well done. The very thorough revision this edition has had, will doubtless maintain the favor it has heretofore enjoyed.

TRANSACTIONS OF THE WEST VIRGINIA MEDICAL SOCIETY, for the year 1873.

We are in receipt of the transactions of the Medical Society of West Virginia, at the meeting held at Morgantown, in that State, in May 1874. Considering the difficulties which the medical men of West Virginia have to contend against in the shape of rugged mountains and indifferent railroad facilities, the volume before us exhibits a laudable interest upon the part of the profession in the objects and aims of their State organization.

Some of the papers presented are interesting and valuable. The first paper, on the "Diagnostic Value of the Urine in Disease," is upon a subject rich in scientific interest. The author,

Dr. R. W. Haslett, of Wheeling, has hardly done the subject or himself justice. Some of his deductions, as well as his premises, are more than questionable. For example, the Doctor says, "The importance of the kyestine pellicle found on the urine [he should have said *stale* urine] in the early month of pregnancy, should not be overlooked when concealment of illicit intercourse forbids the physician the privilege of determining a harmless dropsy by ballotment or otherwise." How the concealment of "illicit intercourse" prevents the detection of a "harmless dropsy," is not very clear. Although "not a constant accompaniment of pregnancy," it is claimed to be "at least diagnostic when found to exist." This conclusion is at variance with nearly all prominent writers of the present day, and certainly no man would be justifiable in pronouncing a woman pregnant on this sign alone, especially when there was only suspected "illicit intercourse," since a similar, if not identical condition has been observed "in the urine of anæmic non-pregnant women, and sometimes in the urine of men." (See Parke's "Composition of Urine," p 106). The Doctor's views on the subject of *puerperal convulsions* are equally unsound.

One of the most interesting and valuable papers is on "New Remedies," by W. H. Sharp, M. D. He has collated many exceedingly valuable facts regarding croton chloral, apomorphia and ergot. Dr. Sharp's paper deserves to be circulated.

The report of the committee on "Medical Botany" contains nothing new.

Dr. H. W. Brock, of Morgantown, contributes an interesting paper on "Inguinal Hernia," with cases.

The report of "Surgical Cases," by Dr. John Frizzell, of Wheeling, proves him a judicious and practical surgeon.

The report of two cases of "ruptured uterus," by Dr. John C. Hupp, of Wheeling, will be read with great interest. It is not clear that the first was a case of rupture. But whether it was or not, we scarcely think it was correct practice to allow a woman to linger "fourteen hours," with the head still within the pelvic excavation, and the os 2½ inches dilated without an attempt at delivery. Case No. 2 is certainly most remarkable—the child having remained entirely within the cavity of the abdomen for five days and twelve hours, at the end of which time it was extracted in a putrid state from "amongst the

bowels" through the rent in the uterus and the vagina. The uterus was ruptured anteriorly from the cervix to the fundus. This woman recovered promptly. C.

BOOKS AND PAMPHLETS RECEIVED.

THE MEDICAL REGISTER AND DIRECTORY OF THE UNITED STATES, systematically arranged by States, comprising names, post-office addresss, educational and professional status of more than *fifty thousand physicians*; with lists of medical societies, colleges, hospitals, and other medical institutions; with abstracts of medical laws of each State; notice of mineral springs, etc. By Samuel W. Butler, M. D. Philadelphia: Office of the *Medical and Surgical Reporter*, 115 South Seventh Street. 1874.

A VIEW OF THE RECENT RESEARCHES IN THE PATHOLOGY AND TREATMENT OF CANCER. By J. J. Caldwell, M. D., Baltimore, M. D.

TRANSACTIONS OF THE LINTON DISTRICT MEDICAL SOCIETY OF THE STATE OF MISSOURI. First to fifth session inclusive. Mexico, Mo. 1874.

OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF CHOLERA. Ry John Murray. M. D. New York: G. B. Putnam & Sons. 1874. Price $1.

[For Sale by Gray, Baker & Co.]

THE PHYSIOLOGY OF MAN; Designed to represent the existing state of physiological science as applied to the functions of the human body. By Austin Flint, Jr., M. D. In five volumes. Vol. V (with a general index to the five volumes), Special Senses; Generation. 8vo. pp. 517. New York: D. Appleton & Co. 1874.

[For sale by Gray, Baker & Co.]

CLINICAL REPORT OF THE LYING-IN SERVICE AT BELLEVUE HOSPITAL FOR THE YEAR 1873. By William T. Lusk, M. D. (Report from the New York *Medical Journal.*) New York: D. Appleton & Co.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY. Year 1874. Lansing: W. S. George & Co., printers.

A TREATISE ON PHARMACY; Designed as a text book for students, and as a guide for the physician and pharmaceutist, containing the officinal and many unofficinal formulas, and numerous examples of extemporaneous prescriptions. By Edward Parrish. Fourth edition enlarged and thoroughly revised by Thos. S. Weigand, with 280 illustrations. 8vo. pp. 977. Philadelphia: Henry C. Lea. 1874.

[For Sale by Gray, Baker & Co.]

SEVENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF ST. LOUIS, June 14th, 1874. By R. H. O'Brien, M. D., Clerk of the Board of Health.

THE COMPLETE HANDBOOK OF OBSTETRICAL SURGERY, or short rules of practice in every emergency, from the simplest to the most formidable operations connected with the science of obstetrics. With illustrations. By Charles Clay, M. D. From the third London edition. Philadelphia: Lindsay & Blakiston. 1874. Price $2.25.

[For Sale by the St. Louis Book & News Co.]

SURGICAL EMERGENCIES, together with the emergencies attendant on Parturition, and the treatment of Poisoning. A manual for the use of the general practitioner. By William Paul Swain, F. R. C. S., Surgeon to the Royal Albert Hospital, Davenport. With eighty-two illustrations. Philadelphia: Lindsay & Blakiston. Price $2.

For Sale by the St. Louis Book & News Co.

MATERIA MEDICA. For the use of students. By John B. Biddle, M. D. Sixth edition revised and enlarged. With illustrations. 8vo. pp. 435. Price $4. Philadelphia: Lindsay & Blakiston. 1874.

ADDRESS OF JOSEPH TONER, M. D., President of the Association. Extracted from the Transactions of the American Medical Association. Philadelphia: Collins, printer. 1874.

LECTURE 3. The Toner Lectures on Strain and Over-Action of the Heart. By A. M. Dacosta, M. D. Delivered May 14th, 1874.

ON PROLAPSE OF THE UMBILICAL CORD: Its Causes and Treatment. By Geo. J. Engleman, A. M., M. D., Fellow of the Royal Obstetrical Society, etc. A reprint from the *American Journal of Obstetrics*, August, 1874. New York: William Wood & Co.

THE ÆNEID: In Modern American. First and fourth books of the Æneid of Virgil. Sent by mail on receipt of 25 cents, Address, Winsted *Herald* Office, Winsted, Conn.

REPORT OF CASES TREATED BY ELECTRICITY. Reprint from the Transactions of the Medical and Chirurgical Faculty of the State of Maryland. With addenda. By J. J. Caldwell, M. D., Baltimore. 1873.

Extracts from Current Medical Literature.

Relations of the Abdominal Branches of the Pneumogastrics to the Treatment of Gastritis, Diarrhœa, Etc.

Dr. H. C Hand, in the *Northwestern Medical and Surgical Journal*, May, 1874, presents some suggestive considerations on the above topic. He shows by quotation and experiment that the vaso-motor nerves are to be reached only through the sympathetic system; that their function is to reduce the size of the blood-vessels; that their stimulation diminishes the heat, color and functional activity of a part; that their paralysis by section dilates the capillaries, produces in the liver diabetes, and in the intestines a copious watery secretion. On the other hand, section of the pneumogastrics produces a directly opposite effect on the liver, stomach and intestines from section of the sympathetic, viz: contraction of the vessels, paleness of the mucous membrane, and diminution or abolishment of secretion, while their stimulation is followed by at least some of the phenomena produced by section of the sympathetic, *e. g.*, diabetes.

In cases of prolonged and severe vomiting, the Doctor applied pressure on one of the vagi. The vomiting stopped, and

the patients grew better or were entirely relieved. The Doctor suggests that pressure upon the vagi would probable relieve cases of serous diarrhœa.

Since the right vagus is distributed mostly to the small intestines, and the left to the stomach, it would seem probable that pressure upon the right would be most effective in diarrhœa, and upon the left for vomiting, etc., in gastritis. He suggests that a cone of ice might be substituted for pressure, if the latter was not appropriate. This pressure is most conveniently applied in the neck, just below the angle of the jaw, the pulsation of the carotid supplying the best guide to the course of the nerve.—*Detroit Review of Medicine.*

Hæmoptysis.—Hypodermic Injection of Ergotine.

We possess no remedy equal to ergotine for hæmoptysis. The prompt suppression of all oozing into the air-cells which, in view of the danger of phthysis in all hæmoptœ, it is so important to effect, can probably be in no way so effectually accomplished as by the employment of this agent. It acts the most rapidly and effectually when administered subcutaneously, for which purpose Boujean's ergotine is the best.—(Dr. Anstie, p. 97.)—*Braithwaite.*

The Instinct of Birds.

The foresight of birds of a coming epidemic of cholera has been occupying the attention of the *Jardin Zoologique.* That journal states that a few days previous to the terrible ravages of cholera in Gallicia in 1872, all the sparrows suddenly quitted the town of Przemyd, and not a single bird returned until the end of November, when the disease had entirely disappeared. The same circumstance was remarked in Munich and Nuremburg. During the attacks of cholera at St. Petersburg and Riga in 1848, in West Prussia in 1849, and in Hanover in 1850, every swallow and sparrow forsook the towns and remained absent until the eradication of the scourge.—*British Med. Journal.*

The Influence of Anæsthetics on the Vaso-Motor Centers.

In an interesting investigation on the influence of anæsthetics on the vaso-motor centers, Dr. H. P. Bowditch and Charles S. Minot, B. S., deduce (Boston *Medical and Surgical Journal, May*

21, *1874*,) the following conclusions as possessing a high degree of probability: "While ether and chloroform resemble each other in their effect on those nervous centers whose activity is connected with the conscious perception of pain, the latter acts much more strongly than the former upon those centres which regulate the arterial blood-tension, and thus affects profoundly the conditions of animal life. Ether and chloroform are, therefore, both anæsthetics, but chloroform is, also, something more."—*Amer. Jour. Med. Science.*

WHAT is the difference between having a tooth drawn by a professional operator, and having it knocked out by a fall on the pavement?—One is dental, and the other accidental.—*Boston Journal of Chemistry.*

Editorial.

HOSPITALS.

The question of hospital construction being agitated at this time both in Europe and in this country, it is of no small importance that we, in St. Louis, do not construct a monument to our ignorance or inattention to the important lesson so dearly purchased in the wars which have recently occurred both in Europe and in this country; also the valuable lessons of reform fastened upon the public attention by the heroic efforts of Florence Nightingale during the Crimean War, yet so fresh in the memory of living witnesses. Shall we profit by the lessons so dearly bought? Shall we give heed to the teachings of science confirmed and enforced by thousands of experiments? or continue to sacrifice human life at the shrine of architectural beauty and elegance by the construction of villas of magnificent edifices closely connected, four or five stories high, and call them hospitals, and point to them with pride as monuments of public charity?

We desire to enter our most earnest protest to all such procedures, as being not simply unwise, but inhuman broad ways to the graveyard, rather than to life and health.

More than a hundred times during the late war, did we witness the fact, that the sick or wounded did better in *tents*, or simply under shelter from the sun and rain, than they did in *dwellings*, say nothing of larger buildings. We have space to relate but one experiment, a very decisive one, however. At Jackson, Miss., a few days after the fall of Vicksburg (in July, 1863), a part of Gen. Sherman's force (4th Div. 17th Army Corps), through some error of orders attacked a line of works near Jackson, Miss., and was repulsed with a loss of some five hundred killed or wounded; a large cottage house near by was taken for an hospital and sheds extemporized (a quantity of lumber being near). The wounded officers were conveyed to the cottage house and two beds were prepared in each room; the openings being large the ventilation was deemed sufficient. The wounds were of every variety produced by the missiles used in fire arms, shells, canister and minnie balls; limbs were shattered and broken in every conceivable manner. It was soon noticed that the officers in the house did not do so well as the soldiers outside who were simply sheltered; so the sash was removed from the windows to improve the ventilation, still the patients indoors had more fever, less appetite, and the wounds did not look so healthy, so they were removed to the verandas, where they would be in the open air, when they improved. Our ample opportunity to verify the advantage of free ventilation during four years of active service in the field, in charge of the sick and wounded of a division or corps, left us in no doubt as to the best manner of constructing hospitals for the sick and wounded. The more isolated, and the nearer out of doors in the open air the patient is, the better. Simple inclosures of one story, heated in part by open fireplaces, with adequate means of ventilation in the ceiling, plain and simple in construction, that in case of contamination, the walls may be knocked off and replastered, or by being vacated to the sun and winds a few weeks, cleansed and disinfected for use again—if the object is *to do the best thing for the sick*, give them a chance of the most certain and speedy recovery—experience has abundantly proved, this is the way.

Dr. Simpson, of Edinburgh, has gathered with great care 4,187 cases of amputations which had been treated in nearly eq ual proportions in hospital and country practice, the comparative results of which show conclusively that the proportion of re-

coveries in the small provincial hospitals, is twice as great as in the great hospitals. It was a startling fact that out of 2,089 amputations in hospital practice, 855 died, while in 2,098 amputations in country practice, only 226 died; and that the difference was still greater when special amputations were compared. We find in the Massachusetts State Board of Health, 1874, page 321, "that in 244 amputations between the elbow and wrist, 40 died in hospital practice, whereas of 377 similar cases in private practice only 2 died. Dr. Simpson, in extending his investigations to limb amputations in general, found that in hospitals of from 300 to 600 beds, one in two and a half dies; in hospitals of from 100 to 300 beds, one in four dies; in hospitals of from 25 to 100 beds, one in five and a half dies; and in isolated rooms in country practice, one in nine dies. He also refers to the enormous difference in the mortality from *surgical fever* (pyæmia) after amputations in hospitals and in private practice, attested by a comparison of statistics collected by various writers. Dr. Simpson concludes from all the testimony carefully compared, that in the treatment of the sick there is ever danger in their aggregation, and safety only in their segregation, and that hospitals should be constructed so as to avoid, as far as possible the former, and secure as far as possible the latter condition."

On the subject of hospitalism, in illustration of the amount of the poisonous elements thrown off from the wounds and surface of the bodies of the sick, we may refer to a fact of the recent war. When Gen. Sherman moved his troops from the extreme left in front of Atlanta to the right, the sick and wounded of the 4th Div. 17th Army Corps, amounted to over 500, who were removed during the day to a new camp, preparatory to giving up the ground then held. Remaining at the old camp to see the last load leave the ground, we followed leisurely with an "orderly," gradually falling behind until overtaken in the timber by darkness, and missing the way, after searching for the right road in vain, we sat down to consider the situation, when we caught a snuff of the peculiar odor from wounds in hospital, and called the attention of the orderly to observe if he could detect the same thing, and, he agreeing that it was so, we now determined to face the current of air and the hospital odor, which grew stronger as we advanced, until we came upon the camp, about half a mile distant. This incident, simple as it is, proves

how great the exhalation is from the sick and wounded, and how damaging it must be to those compelled to inhale it day after day, also how exceedingly difficult to secure such ventilation in any kind of a house, as will wholly free the inmates from such dire infection. After oft repeated observations of this character for a number of years, both in the army and in private practice, the conviction is deep and decisive that the old system of hospitals must give way before the blaze of testimony ever increasing, as we advance in sanitary science. All efforts to improve the old system by ingeniously contrived methods of ventilation, etc., are insufficient, and at best, temporary props to a falling edifice. It is simply impossible to collect together large numbers of sick and destroy the effect of emanations from their bodies or wounds, so as not to affect the well-being of those in the different stories in the same building. We are too much given to *advertising our charities*, be they public or private; if public, in the imposing edifice which challenges the attention and admiration of the stranger. We learn that the construction of our proposed hospital is delayed for "want of funds;" in our humble judgment the greatest God-send to the sick would be an exhausted city treasury for all time, rather than it should be used in the construction of broad ways with magnificent portals leading to our cemeteries. Instead of which we implore for rational pavilion hospitals, located in various parts of the city, of convenient access, and less than one-fourth the expense in construction, if the current expenses to run them should be a trifle more.

We learn from a letter in the Boston *Medical and Surgical Journal* of August 27th, written by a correspondent in Philadelphia that the managers of the Presbyterian Hospital of that city are constructing a one-story pavilion hospital. Taking one ward as a type of all:—

"The building will be constructed of brick, will have double walls, with an interspace of four inches from ground support to roof. Hence the building will wear a protecting suit of brick within four inches of its own walls. The intervening cushion of air will act as a non-conductor, etc. The floor will be put in at an elevation of five feet from the ground, the subjacent space powerfully ventilated by large, open arches, which are to be constructed every few feet on both sides throughout the whole length of the building. The ground beneath the ward will re-

ceive a solid covering of asphalt. The floor will be made of narrow strips of hard Carolina pine, the cracks leaded, the whole to be oiled, and thus rendered water-tight, even as to the wood itself. Like the walls, the floor will be double, and the interspace (six inches in depth) deadened and made solid by a concrete filling. The ward will have rounded corners, above and below; hence no dust can collect. Each of the four curves will be supplied with an open, low-down grate, for purposes of ventilation. Besides these, the building will be heated by a system of hot water. Windows, twelve feet apart, will begin two feet from the floor and reach to within one foot of the ceiling; will be made four feet wide, and be composed of three sashes, the two lower of which will be run by weight and pulley, and the upper turn on a pivot, after the manner of a transom. The sashes will be single, but made so as to receive a *double* glazing. The ward will be fifteen feet high on the square, but twenty three and one-half feet to the ventilator. There will be no horizontal ceiling, the plan being to ceil the inner side of the roof with a plaster so dense as to be impervious to moisture. Outer surface of roof to be slated. Wooden trusses, corresponding to the angle of the roof, will be set eleven feet apart throughout the length of the ward, and an equal number of straight, iron girders, twelve feet from the floor, will connect the opposing walls. According to the plan, the roof terminates in a ridge ventilator, inside width of which is four and one-half feet, and which occupies the entire length of the ward. Drop openings in the ventilator, hinged at their lower sides, will be managed from below by pulleys. The whole arrangement resembles the system of ventilation used in the Pullman palace cars. In the ward there will be wainscoatings, no mouldings, no panels in the doors; the wood work will be well served with oil and shellac, the utmost simplicity observed, and every effort made to prevent infection by any disease whatsoever. Not an ounce of paint will be used in any direction.

"The ward will be provided with fourteen beds on each side, with six feet space between their centres. The end rooms, viz., sitting-room, nurses' room, linen closet, operating and bath-rooms, kitchen, etc., will be horizontally ceiled. A very sensible feature will be the glass floors and backs of the urinals. Indeed, it seems impossible to suggest a convenience, or point

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Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

AUGUST, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	71.0	86.5	18	72.5	94.0
2	66.0	84.0	19	74.0	96.5
3	66.5	85.5	20	74.0	97.0
4	65.5	86.5	21	76.5	96.0
5	66.0	74.5	22	73.0	95.0
6	68.5	88.0	23	71.0	81.0
7	74.0	88.0	24	65.0	82.5
8	71.5	87.0	25	66.0	86.5
9	70.0	90.0	26	69.0	84.5
10	75.0	98.5	27	70.0	78.0
11	77.0	100.5	28	70.5	79.0
12	78.5	100.0	29	71.0	82.5
13	79.5	93.5	30	67.0	78.0
14	67.0	81.0	31	65.0	72.0
15	70.0	86.0			
16	66.0	90.5	Means	70.4	87.5
17	68.0	92.0	Monthly Mean	78.4	

Quantity of rain: 3.94 inches.

Mortality Report.—City of St. Louis.

FROM AUG. 23, 1874, TO SEPT. 19, 1874, INCLUS.

Abscess	1	Conges. bowels	1	Gastro Enteritis	1	Pneumonia	9
Accident	15	Delirium Tremens	1	Heart, Org. Dis	2	Pleuro-pneumonia	1
Alcoholism	1	Debility	11	" Valv. Dis	2	Peritonitis	5
Anemia	1	Dysentery	18	" Paralysis	2	Pertussis	6
Apoplexy	6	Diarrhœa	11	" Malform	1	Scrofula	1
Atrophia	4	Dropsy	4	Hernia	1	Septicæmia	1
Asphyxia	1	" Heart	1	Hepatitis	1	Suicide	2
Asthenia	1	Eclampsia	1	Hydrocephalus	2	Summer Complaint	40
Brain, cong. of	18	Enteritis	7	Inanition	6	Trismus	19
" inflam. of	2	Entero-Colitis	2	Intestinal Catarrh	2	Tabes mesenterica	1
" soft'g of	2	Encephalitis	1	Laryngitis	2	Tumor of Chest	1
Bronchitis	1	Fever, Congestive	5	Marasmus	43	Ulceration of Bowels	1
Bright's Disease	1	" Typhoid	13	Meningitis	15	Variola	83
Chloroform	1	" Typhus	3	Meningitis Cer. Sp.	7	Varioloid	1
Cancer, not defined	2	" Scarlet	3	Metro-peritonitis	1		
" stomach	2	" Remittent	4	Nephritis	1	Total	395
" uterus	1	" Intermittent	1	Old Age	8	Stillborn	69
Cerebritis	2	" Puerperal	1	Perf. Intest	1	Under 5 years	185
Consumption	38	" Malarial	1	Paralysis	4		
Convulsions	19	" Pernicious	1	Poison	2		
Croup	3	Gastritis	4	Premature Birth	1		

THE SAINT LOUIS

Medical and Surgical Journal.

NOVEMBER, 1874.

Original Communications.

CRIMINAL ABORTION.

Read before the Central Missouri District Medical Association, Sedalia, Mo., October 6th, 1874, by JOHN W. TRADER, M. D.

It would appear, and certainly ought to be, a work of supererogation to discuss a subject, or condemn a practice, which the instincts of our nature recognize as criminally wrong, and the perpetration of which must bring a pang, momentary though it be, to the breast of humanity everywhere, however encircled by permissive or commandatory laws.

Among the many sins of the race, there are none more appalling than those which, from their two-fold character, effect both body and soul. Of this class is Criminal Abortion, the topic for our present consideration.

This is no new theme among medical men, and if it were not for the desire to bear some humble part in staying this evil, we should not seek this time and place

to speak upon a subject whose revolting features silence the tongue of the general teacher of morality. From this fact alone, it becomes the duty of this assembly and of medical men everywhere, to give forth no uncertain sound in regard to this matter, and to resolve to bear the shame in silence no longer.

Going back in the history of this crime, we find that from remote ages, and among nearly all peoples, it has had an existence. The Jews, probably, had less than any other nation. Their desire for offspring, and their rigid laws relating to murder, precluded the possibility of infanticide or fœticide. Their own historian, Josephus, appealing in honest pride to the practices of his countrymen, reproaches other nations with these cruelties. Not until their canon-law was wholly ignored, and they had become contaminated with idolatrous nations, did their king offer up his son as a sacrifice, and then the whole nation, desiring to follow his example, caused their seed to pass through the fire unto Moloch.

Among the Grecian states, this crime was upheld by her ablest men, and in fact, infanticide was sanctioned by law. Aristotle taught this doctrine in his work on government, and adds, "If this idea be repugnant to the character of the nation, fix at least the number of children in each family; and if parents transgress the law, let it be ordained that the mother shall destroy the fruit of her body before it shall have received the principles of life and sensation."

The Romans were no less noted for their inhuman treatment of their offspring, both before and after birth. The law delegated to the father supreme control over the lives and fortunes of his family; and if the law

did not openly and positively endorse fœticide, it certainly never punished any one guilty of the crime. "At first, in the most simple and virtuous periods of their history, it was no doubt exercised only under a supposed manifest necessity. As luxury and vice increased in one portion of the community, and with it poverty in another, it came to be practiced on the slightest occasion and for the basest purposes." Juvenal, in his satire on women, in referring to the fashionable and rich lady of his day, says:—

> "You seldom hear of the rich mantle spread,
> For the babe, born in the great lady's bed.
> Such is the power of herbs; such art they use,
> To make them barren, or their first to lose."

Among the ancient Germans, infanticide or fœticide was not tolerated by their laws or practiced by individuals. In this respect they bear a marked contrast to the Romans. The mothers reared their own children and would not trust them to the care of nurses. Tacitus, in his account of the manners of the Germans, says of them, "that to set limits to the population by rearing up only a certain number of children and destroying the rest, is accounted a flagitious crime;" and adds, "among the savage Germans, virtuous manners operate more than good laws in other countries."

The Goths, also called savages or barbarians by the Romans, did not tolerate fœticide or infanticide. Although practiced in a few instances by individuals, it was not sanctioned by their laws. For we find in a code of the Visigoths a positive prohibition against these practices. "It was death to give a woman drugs to procure abortion, and equally criminal if that effect should follow a stroke, or any willful injury."

Coming down from the history of the ancient world to that of the present day, we find this crime prevalent throughout nearly all Asia, Europe, Africa, and the Isles of the Sea. The Chinese are notorious in their disregard for those natural ties that should distinguish a human being, and their law far excels in cruelty the *patria potestas* of the Romans in allowing the promiscuous slaughter of the innocents. If a father sees fit to slay his child, it is considered his prerogative, and the law not only tolerates the deed, but, "on the contrary, it appears rather to be encouraged, inasmuch as persons are employed by the police of the city of Pekin to go through the different streets every morning, in carts, to pick up all the children that may have been thrown out during the night. No inquiries are made, but the bodies are carried to a common pit without the walls of the city, into which all, whether dead or living, are promiscuously thrown."

The Japanese, although forbidden by law, often murder their children and produce abortion without being called to account. "The crime of producing abortion is said to be very frequent, and Captain Golowan, of the Russian Navy, who was a captive among them for three years, says that some of the priests are charged with making a trade of selling decoctions of woods for this purpose."

The Hindoos carry infanticide and fœticide to such an alarming extent as to beggar description. These atrocities have been known to exist among them for over two thousand years, as both Greek and Roman history notice it, and refer to places where it is now known to exist. In some of the provinces, thirty

thousand infants, according to good authority, perish annually by the hand of violence.

In no part of the world, however, has this crime presented itself with more glaring enormities than in the South Sea islands. No woman that has ever borne children among them but has been guilty of the destruction of her issue. When Captain Cook visited these islands, he reported a population of two hundred thousand souls. "In less than thirty years after, this terrestrial paradise, blessed with a genial climate and a luxuriant soil, was reduced to some seven or eight thousand." The mode in which the children were destroyed was by piercing them, before being born, with a piece of bamboo, or should matters be delayed until after the birth of the child, it was immediately strangled or stamped to death.

This crime also prevails in all its horrid forms among the Sandwich Islanders. The only difference, apparently, existing between them and those last named is, that while the Tahiti spared their infants, if they were so fortunate as to escape the executioner for ten minutes after birth, the Sandwich Islanders did not hesitate to destroy their children at any time during their adolescence. In the earlier history of this people, infanticide was exclusively practiced, but now, while through fear, this has ceased to be done openly, they do not hesitate, at imminent peril to the mother, to produce abortion at the fourth or fifth month.

In the Kings-Mills Islands, a woman never allows her family to exceed three. If mothers become pregnant after the third child is born, they resort to systematic abortion. The plan adopted, while it is less barbarous than some of the plans resorted to among us,

who claim a higher degree of enlightenment, is nevertheless effectual, and the women pass through the ordeal with rarely the loss of life.

In the Fiji Islands, one-half of all the conceptions are supposed to be destroyed before the period of gestation is complete. This is usually by the command of the father, "at whose instance the wife takes the necessary steps to destroy her child." In New South Wales, the mothers procure abortion whenever they consider that their families are likely to become a burden by their rapid increase, the mothers often falling victims to the process. The New Zealanders, the Hottentots, and the inhabitants of Madagascar, are all guilty of infanticide. In Arabia, child murder was a common occurrence until the days of Mahommed; to his honor be it said, this practice was interdicted, and in the Koran it is several times alluded to and reprobated. The oath required of all who joined his party, was to this effect: "That they should renounce all idolatry, that they should not steal, nor commit fornication, *nor kill their children*, nor forge calumnies, and that they should obey the prophet in all things that were reasonable." Notwithstanding this stringent prohibition, the Mahommedans of the present day attach very little criminality to fœticide. The Turkish woman employs professional abortionists, who seem to be very skillful in the art, rarely allowing a family to exceed two or three children in number. The lords of the harem, also, command their wives to procure abortion whenever their progeny threaten to become too numerous.

In modern Egypt, abortions are common among all classes. It seems to surprise no one, and the women

miscarry with astonishing indifference, without being subject to criminal investigation.

In Iceland, even, this crime is permitted as an heir-loom of their Norwegian ancestors.

Among all the inhabitants of the Old World do we find the pages of their history blackened by this record of crime. From time immemorial to the present, it has had an existence. The kings upon the throne, as well as the peasants in the field, have yielded a willing assent to this nefarious business; and of some it is said that the thresholds of royalty were crimsoned with the blood of infants who, perhaps, had never breathed the air of heaven—whose cries were never heard, and whose destruction caused no regrets.

Turning from the Old to the New World, we will find this crime no less prevalent. From Hudson's Bay, in the north, to the land of the Montezumas, and all over the two American continents, this revolting crime has had an early and strong hold. The savage Indian caused the mother to miscarry or destroy her infant because they did not wish to be encumbered in their nomadic wanderings, with helpless beings, while the more intelligent Mexican, "delighted in human sacrifice, and kept the altars of their divinities drenched with the blood of infants."

Among the nations above named, these acts may be cited as remnants of barbarism, and as belonging to an age which had received no benefit from Christianity and civilization. Yet it does not stop here. Those who are not only civilized but christianized, are likewise guilty. We find that, in the early history of Christianity, a necessity was laid upon the high officers of the church to speak against their ungodly practice and ex-

onerate their members from this iniquitous offense. Teutullian, in his apology, in referring to the custom of fœticide so common among the Romans, says: "But Christians now are so far from homicide, that with them it is utterly unlawful to make away with the child in the womb, when nature is in deliberation about the man; for to kill a child before it is born, is to commit murder by way of advance; and there is no difference whether you destroy a child in its formation, or after it is formed and delivered; for we Christians look upon him as a man who is one in embryo, for he is being like the fruit in the blossom, and in a little time would have been a perfect man, had nature met with no disturbance."

Minutius Felix, a cotemporary of Justin Martyr, while strongly endorsing his views in regard to the exposition of infants after birth, further adds: "Nay, some of you will not give them the liberty to be born, but by cruel potions procure abortion, and smother the hopeful beginnings of what would come to be a man in his mother's womb."

As Christianity spread, and its salutary influence was felt among the rulers and the people, a change soon manifested itself in public opinion regarding child-murder in all its forms. In the year 315, the Emperor Constantine the Great issued a decree for Italy, and in the year 322, another for Africa, ordaining that all children, born of parents whose limited means would not permit them to raise and properly care for their offspring, should be cared for at the public expense. He also ordered, at the same time, that severe punishment should be inflicted on cruel fathers. But this does not seem to have stopped the crime, and we find

it still existing up to the end of the fourth century when, according to Mr. Gibbon, such murders were included by Valentinian and his colleagues, in the letter and spirit of the Cornelian law.

Notwithstanding the many difficulties surrounding the earlier Christians, we find effort everywhere among them to suppress this vice. The custom of human sacrifice was common among the nations around them, and this without molestation from civil tribunals, except to add fuel to the holocaust, by offering their own babes to appease the wrath of their gods. Saturn, it was asserted, ate his own children, and him the idolatrous nations worshiped. The fathers of the church no doubt hailed with gladness the edicts that were calculated to suppress a crime that was not only so repugnant to them and the better feelings of humanity, but contrary to moral rectitude, and dishonorable to God. It would not be expected with them, that this crime would be left to tarnish the record, much less find an advocate in the church two thousand years hence, with all the experience of the past to guide them. But such is the case. And the evidence will bear out the assertion, that *in no age of the world* has there been a more reckless disregard for the lives of unborn human beings than in this present age, and among the civilized and professedly christianized nations of the earth. All Europe is full of this diabolical sin to-day; and what makes the crime the more revolting, is the fact of the high state of civilization enjoyed by all—or nearly all trans-Atlantic states.

The Western hemisphere, standing but a little way behind the inhabitants of the Eastern in all the advantages that should go to make a people good and great,

have not been slow to imitate the follies of their illustrious ancestors. In this particular, at least, they may be said to have arrived at that period in their history when they can demonstrate, beyond peradventure, the possibility of the disciple being above his master and the servant above his lord. As graphically portrayed by an eminent American teacher, whose language we adopt, "We blush, while we record the fact, that in this country, in our cities and towns, where literature, science, morality, and Christianity are supposed to have much influence, where all the domestic and social virtues are reported as being in full and delightful exercise, even here individuals, male and female, exist, who are continually imbruing their hands and consciences in the blood of unborn infants; yea, medical men are to be found, who, for some trifling pecuniary recompense, will poison the fountains of life, or forcibly induce labor, to the certain destruction of the fœtus, and not unfrequently of its parent.

"So low, gentlemen, is the moral sense of the community on this subject, so ignorant are the greater number of individuals, that even mothers, in many instances, shrink not from the commission of this crime, but will voluntarily destroy their own progeny, in violation of every natural sentiment, and in opposition to the laws of God and man. Perhaps there are few individuals, in extensive practice as obstetricians, who have not had frequent applications made to them by the fathers or mothers of unborn children (respectable and polite in their general appearance and manners) to destroy the fruit of illicit pleasure under the vain hope of preserving their reputation by this unnatural and guilty sacrifice.

"Married women, also, from the fear of labor, from indisposition to have the care, the expense, or the trouble of children, or some other motive equally trifling and degrading, have solicited the embryo should be destroyed by their medical attendant. And when such individuals are informed of the nature of the transaction, there is an expression of real or pretended surprise that any one should deem the act improper, much more guilty; yea, in spite even of the solemn warning of the physician, they will resort to the debased and murderous charlatan, who, for a piece of silver, will annihilate the life of the fœtus, and endanger even that of its ignorant or guilty mother.

"This low estimate of the importance of fœtal life is by no means restricted to the ignorant or to the lower classes of society. Educated, refined, and fashionable women—yea, in many instances, women whose moral character is in other respects without reproach, mothers who are devoted, with an ardent and self-denying affection to the children who already constitute their family, are perfectly indifferent respecting the fœtus in utero. They seem not to realize that the being within them is indeed *animate*, that it is in verity, a human being, body and spirit, that it is of importance, that its value is inestimable, having reference to this world and the next; hence, they in every way neglect its interests. They eat and drink; they walk and ride; they will practice no self-restraint, but will indulge every caprice, every passion, utterly regardless of the unseen and unloved embryo. They act with as much indifference, as if the living, intelligent, immortal existence lodged within their organs were of no more value than the bread eaten, or

the common excretions of the system. Even where mothers have suffered from repeated abortions, where fœtus after fœtus has perished through their neglect or carelessness, and where even their own health is involved in the issue, even in such cases every obstetrician can bear testimony to the great difficulty of inducing his wayward patients to forego certain gratifications, to practice certain self-denials, and to adopt efficient means for the salvation of the child.

"This is not all. We can bear testimony that in some instances the woman who has been well educated, who occupies high station in society, whose influence over others is great, and whose character has not been impugned, will deliberately resort to any and every measure which may effectually destroy her unborn offspring. Ashamed, or afraid to apply to the charlatan, who sustains his existence by the price of blood, dreading, it may be, publicity, she recklessly and boldly adopts measures, however severe and dangerous, for the accomplishment of her unnatural, her guilty purpose. She will make extra muscular effort by long, fatiguing walks, by dancing, running, jumping, kept up as long as possible; she will swallow the most nauseous, irritating and poisonous drugs, and in some instances, will actually arm herself with the surgeon's instrument, and operate upon her own body, that she may be delivered of an embryo, for which she has no desire, and whose birth and appearance she dreads.

"These facts are horrible, but they are too frequent and too true. Often, very often, must all the eloquence and all the authority of the practitioner be employed; often, he must as it were, grasp the conscience of his weak and erring patient, and let her know in language

not to be misunderstood, that she is responsible to her Creator for the life of the being within her."—(Introductory Lecture on Criminal Abortion, by Hugh L. Hodge, M. D.)

There is not a gentleman here, in all probability, who has not at some period of his professional experience, and probably often, been called upon and consulted in regard to this matter; and not only solicited but urged to become a participant in this crime. So intense is the feeling upon this subject, that some women, expecting to become mothers, or loathing the pregnant state, will tell you that they will do any thing in the world—even suffer death—before they will bear another child. In the circumscribed limits of personal experience, no doubt but that persons would be found seeking, daily, advice upon this subject, if it was thought their pleas would be heard or requests granted.

In our own community, any one at all acquainted with the facts, who claims a sense of moral rectitude to guide him, can but stand appalled, not only at the frequency of criminal abortion, but at the total disregard, among the people, of those principles that should characterize professed Christians in this very important affair. Without casting any odium upon the clergy (for they are certainly at times very wrongfully and unnecessarily abused), who display such commendable zeal for the spread of truth and the moral elevation of mankind in other particulars, yet it is to be feared that they have failed to decry this growing evil, or to speak in such unmistakable terms of condemnation as to expose the wrong. The priests of old, when Israel was being led astray by the wicked offerings in the valley of Hinnon "were ever faithful to their trust, and

warned the people of the utter desolation that awaited them if they did not cease to shed innocent blood." —(2 Kings, 21).

The medical profession should stand in solid phalanx with the teacher of morality against this national sin, which is rapidly becoming, not only a general but special calamity, affecting not alone the broad wastes of the savage home, but lurking like an evil demon over our own cities, and invading their hearthstones.

Legislation can never suppress this crime any more than it can cleanse the heart of depravity, or remove the turpitude of sin. The laws may be ever so stringent and threatening, but who cares to become prosecutor, with a long line of respectable citizens arraigned before the bar of justice, and the indicter not in a condition probably, to throw stones. Our lawyers, as a general thing, are too astute to allow such a favorable opportunity to pass, to *draw out the evidence*, which in nine times out of ten, would result in making judge, jury, and witness *particeps criminis* with the accused.

We do not affirm, neither would we have you think for a moment that the *onus* of this guilt lies at the feet of woman. Far from it. In a majority of the cases, they are more sinned against than sinning. When the reformation begins in earnest, it must begin with us men who have been the aggressors, who in every age have first suggested this crime, and who in every age have compelled the execution of it. But few women who have a manly arm to lead them and a manly breast to lean upon, would ever think of such unnatural and inhuman deeds. The chords of their hearts do not beat in unison to such infernal strains. When so far

led astray as to err, it is not without first standing aghast before the

> "Monster of horrid mein,
> Which to be hated needs but to be seen."

Yet man, who is supposed to be the stronger being, suggests and leads the way, while confiding woman follows on, little thinking, perhaps, that her gallant knight is but a false Pyramus who seeks only the gratification of his lust, while her garments, all stained with blood, lie strewn around the tomb of Ninus.

One of the most disgusting scenes through which we, as professional men, have to pass, is that in which one of our own sex will so far emasculate himself, as he sneaks into our office, and requests us to produce abortion upon his own wife, or her whom he has seduced, simply because he does not wish to be encumbered with a family, or have his errant duplicity exposed. No less culpable is he who, ignoring all natural laws, in trying to make his wife sterile, succeeds only in making her a a confirmed invalid.

In conclusion, abortion is a crime, in the first place, against the State. For by the increase of our families do we expect, not only to preserve our race, but to supply all the vocations of a happy and prosperous people. Our legislative halls must have legislators; our pulpits must have a live ministry; our professions must be perpetuated—the ground tilled and the vast resources of the country developed. The sea, also, must be traversed, and the command obeyed, to replenish the earth.

This is a crime, in the second place, against the family. It was evidently intended by the Creator that all government—all legislation should proceed from the

family. Hence the family should be a kind of empire within itself, whose right of primogeniture is inherent and alike entailed, not upon one only, but each individual member. From this centre radiate the materials and principles, from which all power emanates, in the social fabric of the universe.

In the third place, abortion is a crime against the individual practicing it. Any woman systematically producing abortion upon herself will as assuredly suffer, as that natural laws attach penalties to their transgressions.

It is a crime, in the fourth place, against the welfare of the soul. If we are permitted to witness the many dangers that environ our bodies, when subjected to such procedures, and the deformities that cling to them, and to feel the pains that rack our frames until they are dissolved and pass away; who can be able to comprehend the great and irreparable damage done the soul, which passes not away, but lives on forever,

> "Enrobed with light, and naturalized in Heaven,"

or else doomed to

> "Doleful shades, where peace
> And rest can never dwell."

AN ANSWER TO REMARKS OF DR. HODGEN, AND HIS REPLY TO "CRITICISM" THEREON.

By W. R. Erwin, M. D.

I have no desire to misquote or pervert the meaning of the Doctor. It is possible I might have selected a less pretentious word than "criticism" to designate my strictures upon his remarks, but it was the one which occurred to me, and was employed without a thought that it might be presumption in me to use it. The Doctor starts out with the gentle reproof: "If there be any advantage in discussing medical subjects, no lover of the profession will claim that the best good can result from misrepresentation. A fair, open criticism is always proper and profitable." We agree exactly, and I propose to show that he is not misrepresented, and that what I have said, and expect to say, is fair and open.

It is claimed in the Reply that he is quoted as saying: "Carbonic acid is formed in the lungs." He "denies the charge, but will support the position." Reference to my article in the August number, first page, third line: "the oxygen, when it reaches the blood, combines with carbon and forms carbonic acid." (*Vide* remarks, May Journal).

On page 453 of Reply, are the words: "If the Doctor (referring to myself) had added, 'in larger proportion than is contained in the air' (Reply says atmosphere), he would have completed the quotation, and this would have been *just** as I expressed it." If any

*Italics are mine.

one will turn to my paper, he will discover that the Doctor is quoted with greater exactness than he succeeds in quoting himself. The sentences complained of as being incorrectly quoted, follow the copied text, and are not given as a quotation, but as the heads under which I arranged my answer, and were the conclusions drawn from his statement. Under no rule was I bound to adopt his phraseology. It was important that I give the meaning intended by the author, which I believe I did.

He was speaking of the breathing of certain gases, and their exhalation from the lungs, and changes produced in the blood by respiration. Inasmuch as he asserts that "*when* the oxygen *reaches* the *blood* (where does the oxygen *reach* the blood in breathing except *in* the lungs), it combines with the carbon and forms carbonic acid," we are justified in concluding that this acid is "*formed* in the lungs." We are further warranted in *saying* so, since he tells us how it may be "carried *out of the lungs*" by the aid of the diffusible gas, nitrogen. I am willing to admit, however, that it would have added perspicuity to have said, *in the blood in the lungs*. In order to put the matter fairly before us again, I will copy the first part or the Doctor's language.

"The oxygen *when** it *reaches* the *blood combines* with *carbon*, and forms carbonic acid. The nitrogen serves to dilute the oxygen, and also furnishes a chemical agent with which the carbonic acid (*which renders the blood venous*) may diffuse, and thus aid in being carried out of the lungs. If a patient *breathe pure oxygen* or

*Italics are mine.

nitrous oxide, the blood *becomes rapidly venous*, first, because more than the usual amount of oxygen reaches the blood to combine with carbon and form carbonic acid; and secondly, because proper facilities are not afforded for carrying off the carbonic acid. The *very worst* treatment to which a patient could be subjected, if poisoned by carbonic acid gas, would be to permit him to breathe oxygen in larger proportions than is contained in the air. If he could be *forced* to *breathe pure hydrogen*, the blood would sooner be relieved of its load of poison in accordance with Graham's law, etc."

What does the Doctor mean by "the oxygen *when* it *reaches* the *blood* combines with *carbon* and forms carbonic acid?" Surely not reference to the discovery which supplanted the "exploded theory of Lavoisier" —its formation in the tissues. The little word *when* will not, with its verb, harmonize with that view. But the Reply does not tell the whole story about the "exploded doctrine." If it had, some difficulty might be found in disposing of the following: "If a patient breathe pure oxygen or nitrous oxide, the blood *becomes venous, rapidly*, first, because more than the usual amount of *oxygen* reaches the *blood* to *combine* with *carbon* and *form carbonic acid*, etc." Now the part of the supplanting theory omitted is, "And on the other hand, *that the oxygen, which is absorbed during respiration, passes off in a free state with the arterial blood.*"—(Dalton's Physiology, fourth edition, page 228.)

It does not alter the case by the oxygen being pure or mixed. On page 247, same author, "The introduction of oxygen and exhalation of carbonic acid have no direct connection with each other, but are only the beginning and the end of a long series of changes, in

which all the tissues of the body successively or simultaneously take part. Their relation is precisely that which exists between the food introduced into the stomach and urine discharged by the kidneys. * * But the *oxygen* is *not directly converted into carbonic acid any more than the food is directly converted into urea.*" This would seem to settle this question: but how will the Doctor settle the following with Dalton: "The introduction of oxygen (speaking of one poisoned by CO_2) is not *desirable*, because it furnishes one of the elements necessary for the formation of the poison, of which the patient has already too much."

It is demonstrated* beyond a doubt, that in asphyxia, the difficulty in the circulation is in the *capillaries*, and not in the lungs, and that the effect of the obstruction is borne backward through the *arteries* to the heart. This being the case, it is reasonable that the first object in treatment should be directed to modifying the arterial blood in order to remove the obstruction. If at the same time a more diffusible gas can be mixed with the oxygen to aid in the exhalation of carbonic acid, very well. But it would be destructive to "force the breathing of pure hydrogen," since it is pretty well established that asphyxia is due to want of oxygen in the tissues, and not the presence of carbonic acid. I will recur to this point in a moment. That in such a case, the use of "oxygen in larger quantities than is contained in the air" would be beneficial, may be inferred from the fact that exposure of blood to pure oxygen gas, causes a more rapid† oxygenation than the air above. If this is true outside of the body, it is le-

*Flint's Physiology, vol. 1, page 218.

†Dalton's Physiology, fourth edition, page 230.

gitimate to presume it is true inside. Then as I mentioned above, asphyxia* seems to be due to the want of oxygen, and not to the presence of carbonic acid. The experiments† of Regnault and Reiset prove that carbonic acid *does not* act upon the system as a poison, but that the evil effects are caused by the absence of oxygen. This is sustained by recent observations‡ of W. A. Hammond, M. D. The experiments concerning the effect of oxygen upon the system when respired for an indefinite time, have yielded different results in the hands of different observers. Allen§ and Pepys confined animals for twenty-four hours in an atmosphere of pure oxygen gas without any notable results. Flint adds, when discussing this point, "The functions do not seem much altered when the pure gas is taken into the lungs." It is explained by Regnault and Reiset that the unfavorable results obtained by other experimenters are due to impurities in the gas employed, such as presence of carbonic oxide, etc. It is not necessary, however, for me to prove that it is harmless when inhaled indefinitely. There is no drug in the Materia Medica whose unlimited and indiscriminate use would not be prejudicial to health. Neither is it essential that it be true that asphyxia be due to absence of oxygen in the system to prove the incorrectness of direct chemical action between oxygen inhaled and carbonic acid expelled.

The Doctor approvingly reiterates my remarks concerning the formation of pneumates in the lungs with

*Flint's Physiology, vol. 1, page 355.

†Ibid, page 491-2

‡W. A. Hammond, M. D., Treatise on Hygiene, page 351.

§Louget, Traité de Physiologie, Paris, 1861, Tome i, page 458.

the liberation of carbonic acid. It should be recollected, however, that the inhalation of oxygen or any other gas has nothing to do with the process, but is due to the circulation of the blood in the pulmonary tissue—the alkaline carbonates thus being brought in contact with pneumic acid. Analysis of the lungs of a healthy female who was decapitated, yielded* ¾ of a grain of the acid. Is it probable that the quantity of CO_2 which ¾ grain of the acid could generate, would create much embarrassment. It is shown by experiment that bicarbonate of soda may be injected into a vein of a dog without harm, if done slowly. But says the Reply, "The Doctor does not quite reach the full extent to which carbonic acid gas is formed in the lungs." "Oxidation of respiratory food appears to take place in the blood partly in the lungs."—(From Marshall's Physiology.)

Liebig adopted Lavoisier's theory regarding the production of heat with certain modifications. He designated some articles of food, which, instead of being used in nutrition, were for the production of heat. "The above theory of animal heat has been very generally adopted and acknowledged by the medical profession until within a recent period. A few years ago, however, some of its *deficiencies* and *inconsistencies* were pointed out by Lehman of Germany, and Robin and Verdeil in France. * * * We believe it in fact to be altogether erroneous, etc."—(Dalton's Physiology, page 243.) Others might be cited; among the recent, Flint, Jr., Physiology, vol. 1, page 472, *et seq.*

The Doctor says further, "Beside this, (oxidation of respiratory food [?]) carbonic acid is formed in the

*Robin and Verdeil, Chimie Anatomique et Physiologique, Tome ii, page 460.

lungs in the nutritive change that occurs in the lung tissue." He is now "defending the position," yet if he will recall his anatomy, he will remember that the lungs are supplied with special blood vessels for their nutrition apart from the ones forming the pulmonary system, or those in which the æration or hæmatosis of the blood is accomplished. The bronchial arteries carry the blood to the lungs, and veins of like name return it with the waste of lung tissue from "nutritive change" to the heart, where it mixes with the venous blood from the system, and is then borne to the lungs for arterialization.

If the Doctor intended to convey the idea that the carbonic acid from nutritive change in the lungs originates and is exhaled in the same manner as that from the other tissues in the body, thereby adding no direct or special tax upon those organs, I withdraw my criticism upon it, since such meaning would rob it of any special interest. It was unintentional to deny the usefulness of nitrogen in respiration, as might be concluded from reading a remark near the lower margin of page 398. My object was to call attention to what seemed a disposition to give it undue importance in its special office. The article was hastily written for the July number, not even being subjected to revision. Reference will show that being one of the divisions of the subject it only received an accidental notice. The Doctor's remarks upon its part of the respiratory act in his reply, are very satisfactory.

That by rendering the blood abnormally alkaline, the affinity for oxygen is increased, is not susceptible of very strong proof in my opinion. It is essential that it be alkaline in order that the fluidity of the

fibrin and albumen of the blood be preserved. These salts with the aid of chloride of sodium also, preserve the rotundity and shape of the globules. The globules are the oxygen carriers. It is received in them and held in a state* of feeble combination, and in such state is borne to the tissues. "It is clearly demonstrated that the corpuscles are the elements which fix the greatest quantity of this gas." * * "The proportion which they are capable of containing, is to a certain degree *absolute*†, and not dependent upon physical conditions, such as pressure, etc." Now if the capacity of the globules as oxygen carriers is absolute within a certain degree, are we not right in concluding that in their normal and healthy state of complete development, is possessed their extreme of capacity? Such a conclusion is natural.

In connection with the above, we read that the blood plasma absorbs a small quantity of oxygen, and is the chief carrier of the carbonic acid. The latter exists in the plasma in two forms, namely, in solution, and in loose chemical combination in the bicarbonates. The only salt which has the power of largely increasing the capacity of the plasma as a carbonic acid carrier is phosphate of soda‡ (neutral§). Under what circumstances then will abnormal alkalinity affect the corpuscles so as to enable them to retain more, seeing also that the alkalines are in solution in the plasma and not the corpuscles? If it does not increase the ability of the globules, will it empower the plasma to do so?

*Flint's Physiology, vol. 1, page 467.
†Ibid, page 467.
‡Ibid, page 467.
§Ibid, page 45.

How by *combination* with the alkaline substances? These elements are definite in the number of atoms of oxygen contained. There only remains one way, and that is by solution in the plasma; but this fluid only holds a small amount under any condition, and the fluctuation would be immaterial.

The system is capable of disposing of large quantities of alkaline preparations, as shown in the administration of these substances in certain diseases, and ingestion of fruits by persons given to indulgence in that direction. "Increase the capacity of the blood to carry oxygen, and you hasten the waste and hasten death." (Reply.) Admitting the ability to increase the capacity of the blood as an oxygen-carrier, which is true within the normal limit and may be done by increasing the number of blood globules (which if done, would build up) and by otherwise contributing to restoring the blood to its normal state, there may be a condition of blood, as for instance, when holding even the normal amount of phosphate of soda, and augmented by an abnormal amount, that is competent to more rapidly dispose of the waste tissue, which under conditions of rapid destructive metamorphosis is thrown into the the current. But I do not see that such a state of the blood would increase the waste necessarily without also increasing the repair, especially not, if on the whole the blood were brought nearer the healthy standard. It requires however more than blood to perform the complex nutritive changes.

Numerous cases are on record of remarkable recoveries from low diseases of a very exhausting character from the employment of oxygen. Many references of its clinical effects could be cited. For the interest of

any wishing to investigate the subject further in this particular, may do so by referring to a little book, "On Oxygen, its Action, Use and Value in the Treatment of Various Diseases, otherwise Incurable," by Birch, second edition. The clinical part of this work is very good—the part devoted to treating the subject is of little value. In the *New York Medical Gazette* for January 14, 1871, Henry A. Smith, M. D., has a paper "on the Use of Oxygen in Dyspnœa." A brief reference is made to its introduction and use in the Roosevelt Hospital, New York City, in the volume of the *Medical Record* for 1873, p. 594. It says: "The tonic effect realized in cases of phthisis has been *very marked*."

Vol. xliv, *Half-Yearly Abstract* (July-December), 1867, p. 200, contains an abstract of a paper from M. Demarquay "on the Therapeutic Use of Oxygen." He says, in the asthenic state in phthisis treatment was begun in 22 cases by Beddoes, of which number 10 were cured, and 9 relieved. In essential anæmia—chlorosis of young girls with obstinate anorexia—anæmia of convalescents and newly delivered females, also from hemorrhage or fatigue, and from suppuration—in diabetes—ulcers. "In senile gangrene, as long as circulation continues in the artery of the foot, *oxygen is*, according to the observations of MM. Laugier, Demarquay, and Maurice Raynaud, the *only remedy* which in advanced cases affords a *chance* for recovery. Space will not allow me to comment upon these remarks. The cases cited from the *Record* in my last from the practice of Dr. Peaslee and others, are dismissed by the Doctor summarily "as proving nothing in the matter under consideration." The "consideration" was the value of oxygen as a therapeutic agent. While

his remarks on the value of any particular medication are true, yet the contrary is also true, that there *are* cases benefited by treatment. The ability and veracity of the observer are factors which can not be eliminated in forming a conclusion from the record of cases. In the cases referred to, Doctor Peaslee says most positively it was very useful. It is Peaslee and others against my esteemed opponent.

There is no similiarity in the symptoms between the case of Dr. Outten poisoned from chloral and that of Dr. Smith pointed out, except that both took large doses of the drug. It is well known that very large doses of this agent may be taken with impunity, while a minimum quantity in another case may produce alarming symptoms, or even a fatal result. If the extreme symptoms of poisoning exhibited in Dr. Smith's patient were present in Dr. Outten's, and no treatment adopted, then, *cæteris paribus*, in case of recovery, it might be said at least, the oxygen did no harm, since the patient treated with it recovered also. But if Dr. Outten's patient was treated by some other plan, it only shows that oxygen is not the only *vis medicatrix*. It has not been contended on my part that oxygen is to supercede all other medication or that it is the only balm. I have not contended that in the administration of it, its indefinite use is proper, on the contrary, I would exercise a close scrutiny over its employment. In some cases, it should be given only once a day, or every other day, and a gallon to five gallons at a time. In some instances pure, while in others mixed with air. There are still other cases where a "chasm" may need "bridging over," in which event the frequency of its administration must be determined by the condition. It is true

that in syncope tissue change is arrested, but if there is danger from too great alkalinity of the blood, and on such account spirits or carbonate of ammonia is to be interdicted from internal use, will not the same objection arise against inhaling it, for though tissue change is stopped momentarily, will not what already is in the blood, and what will be poured into it by the re-establishment of the disintegrating process on rousing up, give rise to the same danger. It must be remembered according to Headland that this drug by inhalation readily passes into the blood.

I am not concerned in a discussion as to the correctness of Dr. Boislinière's theory of elimination.

That the frog has survived a half hour's confinement in pure hydrogen gas, is no evidence that man could do so. There seems to be no doubt but that it has lived for a considerable time, enclosed in the centre of rocks, deprived of all gas, except what it made for itself and what would pass through the rock. Hydrogen gas cannot support life for a moment. It is not poisonous, and when mixed with oxygen (pure) offers no interference to the vital processes. In this combination I have never objected to its employment, it is to its *use alone.* If it be true that asphyxia is due to absence of oxygen in tissues, then every moment spent in trying to exhale carbonic acid by its means ("forced breathing") is weaving the crape for the door. The contrasting of two passages of my former article with a view of showing inconsistency loses its effect, when it is considered, that in the first quotation, I was speaking of medication *per orem* (by the stomach), where the conditions are unknown, *i. e.:* What agent or agents the remedy may come in contact with, to affect its chemical properties

and thus its therapeutic properties also. In the second, reference is made to conditions which the Doctor has proposed, namely: The presence of carbon and carbonates, or bi-carbonates, with oxygen as the medicanent, and ergo our right to "unvarying results."

The effects of pure oxygen, as quoted from Marshall's Physiology by the Doctor, are not such as the most modern researchers give to it. Dalton and Flint speak very strongly to the contrary. The latter* says: "The functions do not seem to be much altered when the pure gas is taken into the lungs." Experiments of Allen and Pepys, Regnault and Reiset, Dr. Hammond and many others, testify to the same, though I don't know that any one has claimed that its indefinite use would not be injurious. It is my impression that Prof. R. Ogden Doremus, told his class on one occasion, that its respiration in its pure state, is harmless. I do not state this positively, but I know, at his suggestion on the same occasion, I went with others to an establishment where it was made and inhaled it for some little time without any apparent effect. The Doctor disputes my statement, that to "arterialize the blood completely, respiration will stop." The respiratory sense is placed in the tissues, and is conveyed to the medulla oblongata by the nerves of general sensibility. In this respect it is like hunger or thirst. By a reflex action the hunger is experienced in the stomach, but the real want is in the system. Respiration is one of the functions in the complex one of nutrition—it is a part of the process. To verify my statement alluded to above, which any student may do, take a dog,

*Flint's Phys., vol. 1, p. 415.

anæsthetize, expose the lungs and open the trachea, in which insert a bellows tube; artificial respiration may be employed, and so long as done no effort will be made to respire; stop, and as soon as blood becomes dark in the veins, efforts to breathe will be made. Begin respiration again, and as soon as the blood in the arteries is bright red, the efforts will cease, and so on. The same result will follow the opening of an artery as ligation of the aorta, only less promptly if the vessel is small. When enough blood has escaped from the body to prevent a full supply of oxygen to the tissues, efforts to respire will begin, and continue till they grow convulsive, notwithstanding air has been pumped into the lungs, and the blood is thoroughly supplied with oxygen. This shows the respiratory act to be based on the needs of the tissues, and proves what I said about supply and demand. Flint says, page 484: "The necessities on the part of the system, for oxygen, regulate the supply of air to the lungs." This author mentions the above experiments. The inhalation of nitrous oxide in its effects I have not disputed, though I think its evil effects result from its strong affinity for the blood globules. If Prof. Stokes' theory is true, "That the difference in color of venous and arterial blood is not due to the presence or absence of carbonic acid." It was a mistake to say "that carbonic acid renders the blood venous," but a want of oxidation of the cruorin. I am glad to leave this question between the Doctor and Professor Stokes.

Bay City, Mich., Sept. 29, 1874.

Proceedings.

ST. LOUIS MEDICAL SOCIETY.

St. Louis, September 12th, 1874.

Dr. Gregory exhibited a pathological specimen—a malignant tumor, involving the destruction of the middle third of the femur, and extending as far upward as the trochanter major. He was in doubt as to whether the tumor was an osteo-sarcoma or an osteo-cancer. He rather supposed it an osteo sarcoma, as he could find no glandular involvements. He referred to the differences between the stroma of the two classes mentioned. In osteo-sarcoma the cells are crowded together, and there is but little intercellular space.

History of the Case.—Patient is a German, aged thirty-two years. The tumor made its appearance eighteen months ago. Spontaneous fracture of the femur occurred at the site six months later. The tumor continued to enlarge; the general health of the patient was tolerable, and is still good; his appetite is good; he sleeps well without anodynes; he is hopeful; can turn over readily and move about in bed, and, altogether, he is now in a most prosperous condition. During the past week, I removed the limb at the hip-joint—performing the flap operation—being ably assisted by Drs. Wesseler, Hodgen, Lankford, Canon, Moses, Mudd, and others. I did not use Skey's aortic tourniquet to compress the aorta. One assistant held the aorta against the spine, a second compressed the femoral artery against the pubis, while a third followed the knife with his hands, folding the flaps and thus compressing the vessels. I introduced the knife above the trochanter, on the anterior and outer surface. I was fortunate in puncturing the capsular ligament—and then by passing the knife downward and inward I made the anterior flap. The head of the femur was then pressed upward, by an assistant placing one hand below the joint, and then disarticulated; I passed the knife through the articulation, behind the head of the femur, and made the posterior flap by cutting downward and outward. It was impossible for my assistant to use the femur as a lever, on account of the fractured and diseased

condition of that bone. I tied the vessels in the posterior flap first, and those in the anterior flap, leaving the femoral artery, the largest vessel severed, for the last. Very little blood was lost during the operation. I cannot understand why so much should be said and written about the circular, the oval, and other amputations at the hip-joint, when the flap operation, just described, is so safely and so quickly performed. The removal of the limb at the hip-joint was formerly considered the most dangerous amputation in surgery, on account of hemorrhage. For my part, I fail to see the danger. There is no more danger of hemorrhage from amputation at this site than from any other large operation on the body. An assistant can control the aorta by manual compression; another can control hemorrhage from the femoral artery; while a third clasps the flaps in his hands, and thus checks the hemorrhage from the smaller vessels. Four assistants are necessary—as one must give chloroform. There can be no better, safer, or more speedy operation for removal of the limb at the hip-joint than the simple flap amputation, such as I performed on this patient. Patient is now in the Alexian Hospital of this city—St. Joseph's Hospital.

Dr. Faber—Dr. Gregory stated that he punctured the capsular ligament, and, of course, severed it. Would not the remaining segment act as a foreign body if allowed to remain?

Dr. Gregory—The cut surfaces were thoroughly cleansed before sutures are applied.

Dr. Edgar—This patient is in a *small* hospital and "is in a most prosperous condition," we are told. I desire to remark here, that, according to approved statistics, his chance for life is much better than in a large hospital, and would be still better if alone. I am in favor of small hospitals—the smaller the better.

Dr. Keith read the following query, addressed to him by a country physician, viz.: "What is the practice of St. Louis surgeons with regard to the operation of lithotripsy?"

Dr. Gregory said he had performed the operation *but once*—several years ago—on an adult, who refused to submit to lithotomy. The stone was small and soft—probably phosphatic. He succeeded in crushing the calculus, and in removing most of the fragments; but the patient left the hospital before all the fragments had been removed or passed, and returned three or four

years afterward with a large calculus in his bladder. The operation had not been successful. Lithotomy was necessary finally.

Dr. Gregory preferred lithotomy to lithotripsy, because a large majority of patients who suffer from stone in the bladder are children. The urethra of a child is too small to admit a lithotrite. To be successful, the operation of lithotripsy requires as much practice on the cadaver as does lithotomy. He prefers Civiale's lithotrite, because of its simplicity. If my patient were an adult, and he refused to be cut, I would crush the stone, provided I was satisfied the stone was small and soft. I would be guided in my judgment of the character of the stone by the rapidity of its formation, by the peculiar "click" of the sound, and by microscopic examination of the urinary deposit. The chief dangers from the operation of lithotripsy are cystitis, urethral impaction, urethral fever, etc.

Dr. McPheeters reported a fatal case from the administration of chloroform, occurring in the practice of a St. Louis physician. A colored woman, aged forty years, presented herself at the physician's office one evening recently, with dislocated inferior maxilla. The jaw was reduced, in the office, after inhalation of a large quantity (℥iv to ℥vi) of chloroform. Next morning the physician was called to her, and found the jaw again dislocated, either from the relaxed condition of the ligaments or other cause. Chloroform was administered for an hour (℥iv to ℥vi used) before reduction could be accomplished. Respiration suddenly ceased, and patient was dead. A second physician was immediately summoned.

Conclusions suggested by this case: It is more hazardous to administer chloroform for operations about the mouth than elsewhere, because respiration is thereby partly interfered with. It is dangerous to prolong the use of chloroform for an hour as in this case, or until ℥iv or ℥vi are inhaled, because of the cumulative effect of the anæsthetic. Death has rarely occurred in this city from the use of chloroform. I now remember but three deaths.

Dr. Montgomery—It is hazardous to give chloroform without the presence of an assistant. I never give chloroform *alone*. I really prefer three or four assistants, as do European surgeons. One assistant to watch the pulse, one the countenance, another the breathing, and a fourth to administer the agent. It is ex-

ceedingly dangerous to administer chloroform in such large quantities as four or six ounces. This is an enormous dose, and such practice is rash and hazardous. I would caution all physicians against such practice. It is unnecessary to chloroform a patient in order to reduce a dislocated jaw. I never gave it in such cases. Dislocation interferes with proper respiration, without increasing that interference by giving chloroform.

Dr. Gregory never gave chloroform in order to reduce a dislocated jaw, in his practice. He had been successful in every case without it. Still he would use it if he ever deemed it necessary. He once administered chloroform for Dr. Pope to a patient whose jaw had been dislocated for one month. Even this however, was unnecessary, as the jaw was *readily* reduced.

Dr. Judd remarked that in 1844, Horace Wells, of Hartford, Connecticut, first demonstrated to the world the feasibility of performing surgical operations without pain, complete anæsthesia having been produced in the subject by the inhalation of nitrous oxide gas. In 1846, Dr. Morton, of Boston, succeeded in producing anæthesia by the use of ether. In 1847, Dr. Simpson, of Edinburgh, produced the same effect by the use of chloroform. For a short time these agents were used freely upon all classes of patients by professional and even by non-professional men for controlling pain; but soon the reports of deaths from the use of these anæsthetic agents made their appearance in the *Journals*, and thoughtful men became more cautious in administering them. Various opinions have been expressed as to the manner of producing death by these agents, and a great diversity of opinion exists at the present time upon this subject. It seems probable, however, that death takes place as a result of the administration of chloroform, at least in three different ways, viz.: 1, by asphyxia; 2, by syncope, or shock upon the nervous system; 3, by narcotism of the nerve centers of organic life.

Dr. Johnston stated that sulph. ether was discovered in 1843, and chloroform in 1847.

Dr. Newman presented a pathological specimen—a tænia—this, said he, is the sequel to a case which I reported four or five months ago. At that time I supposed I had secured the head of the worm, and that the entire worm had been removed. Dr. Dean assured me that I had not obtained the head; probably

from one to three feet remained and that I would likely hear more of it in four or five months. Patient afterward informed me that she was passing small short worms which moved about —I supposed them to be round worms, and gave a decoction of spigelia Marylandica and aloes, but no worms passed. I then gave calomel, gr. x and santonin gr. ij, followed by the above decoction, and afterward by a dose of turpentine. Fifteen feet of tape-worm were soon expelled. Note the rapidity with which the tænia re-formed; in five or six months it had grown larger, longer and wider than before, and the indications are that a large part still remains.

Dr. Newland stated that his favorite remedy for expelling tænia was kameela or rottlera, either tincture or pulvis. It comes from Abyssinia, and is found in the drug stores.

Dr. Keuckelhan preferred kameela to all other remedies for expelling tæniæ, viz.:

℞ Kameela, or pulv. rottlera, ʒij.
Ethereal ext. felicis mas., ʒiss.
Syr. simplicis, ℥ij.
M. Sig. Half at once; remainder in two hours, if necessary.

My next best remedy is a drachm of the bark of the root of the pomegranate. The bark must be fresh or it is useless.

Dr. Faber used the same remedy (kameela) frequently and successfully. In one case, however, recently, it failed to expel the worm; another physician was called, who gave kousso, and the worm passed soon afterward. Felix mas is good, but kameea is far more effective in my practice.

Dr. Rumbold recently expelled a tænia with the following:

℞ Acidi carbolici, gr. xx.
Aquæ destill, ℥viij.
M. Sig. One-third every two hours.

Dr, Dean stated that others had frequently mistaken the seperate joints of tape-worms for some other kind of worms, because of their movements and the shapes they assumed. They generally, if alive, move to the surface of, or away from the dejecta, and one extremity often has a head-like look, somewhat like the head of the hammer-headed shark—if the little may be thus compared with the big.

Dr. Dean exhibited several microscopical specimens, and said: In the spring of 1871, while demonstrating the anatomy of the fly, I found a small nematoid larva, which I supposed came from the thorax; but an examination of the few flies I could then find (15 or 20) giving only negative results, I gave up the investigation, concluding the case was an exceptional one. Recently my assistant, while examining the head of a fly, informed me that he had found a trichina crawling from the crushed mass! I immediately recognized my old acquaintance, and my first decapitation was rewarded by the sight of twelve worms squirming and gliding from the crushed head. A further examination of one hundred flies gave twenty infected. The worms appeared to be mainly, if not entirely, in the proboscis, writhing backward and forth in the fleshy lobes and middle segment to the pharynx. A further examination gives thirty-two per cent. infected in the proboscides alone. In the meat-fly *Musca vomitoria*, and in the comparatively few specimens obtained of *Stomoxys calcitrans*, which bites so severely, and is found in our houses with other flies, none were seen. They are larger than the coiled larvæ in the intestinal wall of the chicken, more nearly resembling in size the mature female trichina. It is probable these immature worms, with their hosts, the flies, are swallowed by birds or other small animals or by man, in which, or in whom, the complete development goes on. The ease with which they pass out of the oral orifice of the fly, when the proboscis is removed, suggests that they may be disseminated by their voluntary migration to the surface of food licked by the flies. The number of eggs scattered somewhere, from which so many flies suck up one to several with the juice of their pulpy food, must be enormous, if, as is likely, they obtain the parasites in this way. Flies are largely hatched in manure about stables. As my office is near a large stable, and the dung of horses contains myriads of eggs from worms in their alimentary canal, I suspected the infection of flies was local, as it may yet prove. But an examination of flies found at a considerable distance from stables, results as with the others; and a close examination discovers no ova, embryos or larvæ in the fly maggots, and nothing corresponding to these worms, free or in the many ova in the dung. This discovery may turn out to be of small account, or it may be of greater value, either of a direct sanitary charac-

ter, or as aiding in clearing up the history of another species of nematoid. We have been accustomed to look upon house flies as useful scavangers; but besides their begriming everything with which they come in contact, and their persistence in tormenting man and animals, by sucking up the exhalations from the pores of their skin, they may prove to be a nuisance on a much larger scale. It were well they were found to bear only their own death-warrant.

[For a more complete discussion on worms, see March number of this JOURNAL.]

Society adjourned.

ST. LOUIS, September 19th, 1874.

Dr. Newman related the following fatal case: He was recently called to see a man suffering with pain in the bowels; on arriving he found the pain had subsided—there was neither febrile excitement, nor pain or tenderness on pressure. Patient had received a gun-shot wound several months previous—the ball entering the abdomen in front—to the left of the median line and just below the tenth rib. He made no prescription and left. On the second day afterward the pain returned with increased intensity. He gave morphia and relieved the patient. As the bowel was constipated he gave an enema and followed it on the next day by an oleaginous mixture. There was still no tenderness on pressure over the abdomen, no sickness at the stomach; a bottle of magnes. citr. was taken, without an action. He suspected obstruction of the bowel and sent for Dr. Hodgen. After consultation, the oleaginous mixture was continued and morphia and belladonna given to allay pain. On the next day they attempted inflation, suspecting intussusception, but it was deferred on account of producing too great pain. On the next day, they chloroformed the patient and inflated the gut, a gurgling noise was heard within, patient was partly relieved, but no passage yet. The propriety of making an exploring incision into the abdomen was considered, but not advised on account of the unfavorable condition of the patient and the probability of extensive inflammation already. He suspected, from the rational signs, *e. g.*, cough, dyspnœa, pain in the chest, etc., at his last visit, pneumonia of the left lung, in the second

stage and that it had thus far remained unobserved by both physicians; but percussion revealed tympanites of the left chest, pneumothorax. He supposed this a case of obstruction of the bowel, and that colitis, peritonites, pleuritis and pneumomitis resulted. Autopsy refused.

Dr. Hodgen said he attended the patient at the time he was wounded. The ball entered as Dr. Newman has described; passing backward it wounded the left kidney, as hæmaturia and pain in the left testicle supervened. On learning the tympanitic condition of the left chest, he explained the case as follows: Inflammation began at the site of the wound,—in view of the relation of colon, kidney and diaphragm, he supposed the inflammation extended from the kidney to the colon, paralyzing its muscular coat and checking peristaltic action,—every inflammation paralyzes muscular action, hence the obstinate constipation or obstruction; inflammation continued until ulceration and perforation of the colon supervened, the ulceration extended through the diaphragm, because of its immediate proximity, and thus gas from the intestine escaped through the perforation in the colon and diaphragm into the thoracic cavity, giving tympanites over left chest on the day prior to death.

Dr. Estis related an anomalous case somewhat similar.

Dr. Coles reported a case of hydrothorax, in which the fluid had escaped from the pleural cavity and pointed immediately back of the external condyle of the right elbow. It occurred in a boy aged eighteen years, who had been ill of pleuro-pneumonia, complicated near the close of the attack with pericarditis and endocarditis, more than a year previous. He was very ill but had apparently recovered, save valvular trouble of the heart. Whether the subsequent hydrothorax was due to the heart disease or to a relapse of the pleural trouble he did not know. Patient presented himself at his office eighteen months afterward, much changed; he was pale and dropsical, heart dilated and laboring hard, great dyspnœa, with marked distention of right pleural cavity. Patient said that for several months subsequent to his illness he had been able to do light work.

In consequence of debility and dyspnœa he had gradually relapsed into his present deplorable state. The immediate cause of his consulting him on the present occasion was a small "*rising*" near the right elbow joint, just behind the external condyle

of the humerus. Upon examination of this small swelling, it presented all the tokens of a *"cold abscess,"* such as are common to anæmic strumous subjects. Fluctuation being distinct he decided to open it at once, which he did,—patient being in the recumbent position. Instead of pus, a copious flow of serous fluid escaped in such quantities as to convince him that its source was beyond the arm. After the escape of considerably over a pint, a bandage was applied to the arm and the opening plugged with a tent. The result was a partial relief of the dyspnœa. After a lapse of ten days, the pressure on the arm was removed and several ounces of fluid again dribbled away. In a week after this, patient died. Autopsy was refused; but he was permitted to verify his suspicion of a connection between the fistula in the arm and the thorax, by slitting up the channel on a director. The fistulous canal was found to extend upward superficially on the belly of the triceps muscle until it reached the lower border of the scapula, when it turned inward between the neck of the humerus and the long head of the triceps, passing between the teres muscles into the chest. This is a remarkable case, he had seen but one other case where matter had traveled so circuitous a route before pointing; this was in a patient under his care in Bellevue Hospital, N. Y., before the war, where a man had been treated for disease of the knee joint. There was a fistulous opening near the outer condyle of the femur, which, with the aid of a director, he slit up, and it turned out to be an *anal* fistula, entering the gut by the side of the coccyx.

Dr. Prewitt in reply to a call stated that his recent visit to Europe had been pleasant and instructive to him, especially so in a professional sense. His observation was limited to London hospitals, where he spent one month. He visited Guy's, St. Thomas', Moorefield's, and other hospitals; and met many men eminent in the profession, viz: Sir Wm. Furguson, Spencer Wells, Critchett, Bowman, Morell Mackenzie, Wood, and others. He referred with pleasure to the kindness and courtesy received from them. Wells, the noted ovariotomist, had performed ovariotomy six hundred and forty times, and with remarkable success—the mortality in the last one hundred cases, is twenty per cent. The mortality of the whole number of cases (640) is twenty-four per cent. He attributes Wells' success to the care and judgment exercised in the selection of

his cases for operation. He has the privilege to select from a large number of patients, and refuses those in whom he doubts the propriety of operating, thus securing only the most favorable cases for his operations. Wells is a most remarkably cool operator. Dr. Prewitt witnessed one operation of ovariotomy, for removal of fibro-cystic tumor of the ovary. No unfavorable symptom followed.

Sir Wm. Furguson also operated for the removal of an ovarian tumor, in his presence. He also saw Sir William operate for cleft palate—the operation involved both hard and soft palates; his plan is an ingenious one—peculiarly his own—and was satisfactory; patient was completely relieved, by complete closure of the cleft. He also witnessed many exsections, *e. g.*, of the knee. He thinks American surgeons obtain better results by more conservatory surgery. At the hospital where diseases of the throat are treated, he met Morell Mackenzie. He admired the skill and wonderful facility with which he handled the laryngoscope. He mentioned Mackenzie's treatment of goitre (bronchocele), both cystic and fibrous, by injecting tr. iodine, and tr. ferri mur. These injections excite inflammation, cause suppuration and produce destruction of the sac in cystic goitres, but not in the others. Kali iodid. was used externally in all cases. Mackenzie's treatment of glandular enlargements in the neck, consists of dilute acetic acid injected. He treated an exophthalmic goitre by injecting tr. iodine; he did not learn the result. He also met Mr. Wood, the author of Wood's radical cure for hernia. A number of patients operated on by Wood, have since been admitted into the army, so perfectly have they been relieved. In all such cases the treatment has proved efficient and permanent. Wood has great confidence in his method. Dr. Prewitt, however, believes the results temporary; that the adhesion about the inguinal ring is of the same character as old pleuritic adhesions and will finally disappear.

Dr. Estis reported a case of inguinal hernia, on whom he performed the operation for radical cure successfully. Eleven years have passed; he lost sight of the patient eight years ago. He remarked that after a linear incision has been made in the abdominal wall and the edges have entirely healed, the cicatrix will stand any amount of pressure the man can put on it; the

cicatrix becomes as strong as any other part of the abdominal wall—why not so of the adhesion produced by the operation for hernia?

Dr. Hodgen—I will answer the question by giving the following *rule:* In serous membranes, the adventitious tissues or membranes, the result of inflammation, soon disappear; not so in mucous, cutaneous or other tissues. I have no faith in the radical cure of hernia by Woods' method. I have operated for the cure of hernia a few times myself.

Dr. Gregory—I have performed the operation for the radical cure of hernia several times, and I have lost confidence in these adventitious adhesions; they all disappear sooner or later. I operated upon a child with a hare-lip last winter. I found the lip, two months later, had become adherent to the superior maxilla. I was tempted at the time to cut the lip loose, but now the lip is much less adherent, and the probability is that the lip will be entirely free after a while, without surgical interference. I think all the adhesions in operations for hernia break loose finally. The treatment of hernia stands to-day where it did fifty years ago. We have attained to nothing reliable in the treatment of hernia by the radical cure plan.

Dr. Estis—Cannot peritonitis be avoided or suppressed by anodynes, nervous sedatives, etc.?

Dr. Prewitt—Very little danger is to be apprehended from puncturing the peritoneum in operations for the cure of hernia; all surgeons puncture it in performing this operation, and the mortality is at its minimum.

Society adjourned.

Reviews and Bibliographical Notices.

ON PROLAPSE OF THE UMBILICAL CORD. Its Causes and Treatment. By Geo. J. Englemann, A. M., M. D, Master in Obstetrics of the University of Vienna, etc. A reprint from the *American Journal of Obstetrics and Diseases of Women and Children*, August, 1874. New York: Wm. Wood & Co.

We have, in this valuable contribution to the literature of the subject, first given the relative frequency of prolapse of the cord to normal cases, as gathered from the obstetricians of many countries: the British having 1 prolapse in 232½ cases of labor; the French 1 in 373; the German 1 in 262⅔; according to the statistics of public institutions; in private practice much less. In this country it is so rare that many practitioners never meet with a case during their entire professional experience. The relative frequency of the various presentations are given in 365 cases, 63 of which occurred in the lying-in hospital, and 302 out-door cases. Great labor and painstaking is displayed in tabulating the pelvic measurements together with all facts of possible interest in each of the 63 cases treated in hospital; only an enthusiastic German scientist would be capable of so great an undertaking, it would make an American tired to *see* the tables.

The Doctor thus sums up the facts attained and the laws established by the examination of his prolapse cases.

"The causes of the prolapse of the umbilical cord have mainly proved to be such circumstances as prevent the complete filling of the pelvic brim, and the close adaptation of the lower segment of the uterus to the presenting part. One of the more important of these circumstances is the shape of the presenting fœtal part itself, and we thus find that foot presentations are most frequently complicated by prolapse, whereas vertex presentations are least threatened.

The fœtal appendages are of secondary and minor importance; undue length of the cord, its marginal insertion or attachment of the placenta low down in the uterus can never be direct cause of the accident; excess of liquor amnii is alone to be feared.

Some stress is to be laid on abnormity in shape and position of the womb, much more upon twin births. More dangerous than any of these is the contracted pelvis, which I have proved by measurements and numbers to be the main cause of prolapse of the funis, directly or indirectly; a fact hitherto generally accepted, but never as yet clearly established. Another such vague general statement, that the prolapse is by far more frequently among multiparæ than among primiparæ, our cases disprove; they show that primiparæ are, comparatively speaking, almost as frequently afflicted as multiparæ.

The law governing the location of the prolapse is of importance, and here for the first time touched upon; it will, I trust, be verified by the investigation of other observers.

The post-mortem examinations revealed only the lesions due to death from asphyxia, nothing characteristic for death caused by prolapse of the cord.

The prognosis we can give is somewhat better than generally allowed; most favorable for foot presentations, after these for shoulder and transverse presentations, while vertex presentations are more dangerous than any; the case being, under all circumstances, more threatening when occurring in a primapara.

In the treatment of our cases the high importance of the postural method has been developed, more as an adjuvant, however, than as a method in itself of dealing with the prolapse.

Version is comparatively the most successful of all operations; and should be more frequently resorted to when any choice of method is given, as in head presentations; the application of the forceps and reposition of the cord are less to be relied upon; but whatever may be the course determined upon, it must be borne in mind that the success of all operations, by which we seek the preservation of the child, whose life is threatened by compression of the prolapsed cord, is in a measure dependent upon the judicious use of chloroform, its application to full surgical anæsthesia."

INJURIES OF THE SKULL. Their Relation to Medical Evidence, with Reports of Cases, and Remarks upon the Employment of the Trephine. By C. C. F. Gay, M. D., Surgeon of Buffalo General Hospital.

This is a little pamphlet of only 11 pages. The author

professes two purposes in the preparation of his pamphlet. One purpose (page 1) is, "to ascertain if there be any valid reason why medical opinion should not be uniform, and testimony devoid of discrepancy," on the question "whether or not a blow upon the head, which did not fracture the skull, might be considered as dangerous, or even more dangerous, than another blow which did fracture the skull."

The other purpose is expressed in the last sentence of the pamphlet (p. 11). "A little more warrant for an occasional deviation from the rule (limiting the use of the trephine) is, all that I should be willing to insist upon; and this warrant, I suspect, will in due time be granted."

To the question involved in the first purpose, taken in its most obvious meaning, affirmative opinion should be uniform, and testimony devoid of discrepancy; for every observant man has known of persons who have recovered perfectly from blows upon the head, which did fracture the skull; and has also known of death more or less speedy, or of disabling derangements of the nervous system, resulting from blows which did not fracture the skull.

If the question be read (as the author seems to read it) to mean:—Is a blow on the head, which does not fracture the skull the more dangerous, *because of the non-fracture?*—opinion and testimony should be almost uniformly negative, for valid reasons. The blows which fracture inflict the hurt of compression and puncture upon parts subjacent to the fracture, and (in a degree probably not less because of the fracture) they damage distant parts, by displacement, concussion and shock; and they may—even in distant parts, by laceration and extravisation—produce the evils of compression and penetration as surely as these results follow non-fracturing blows. And, indeed, the author, on page 11, says, "a force which fractures the bones of the skull must, almost of necessity, so contuse the brain substance, or inflict injury upon the investing membrane, or cause extravisation or blood clot, as to produce, with the attendant shock, inevitable death."

In estimating the relative danger of fracturing and non-fracturing blows, it must be borne in mind that nearly all cases of fracture of skull (and especially the author's more favorable comminuted and most favorable compound fractures) obtain

speedy surgical help, and often the aid of the valued "trephine and its congener, the gnawing forceps;" yet, alas, early and appropriate treatment, and even the trephine, forceps and elevator are often helpless to save from disabling sequelæ or speedy death; while countless cases of thwacks and thumps on the skull, which have not fractured, go untreated, and never develop hurt. The relative momentum or shock in the fracturing and the non-fracturing cases, can never be a subject of even approximative practical measurement. The views of the author seem to claim that a crack in the cranium, simultaneous with the blow, would give safe exit to the concussion and repercussion, which, by confinement, would acquire increased and dangerous intensity, and bring, like bound and blinded Samson, sore destruction on the imprisoning edifice. A rather odd illusion of the value of letting out the materies morbi.

Appeal is made to the high authority of Erichsen and Holmes, to support this view; but, the cases of dire disaster from non-fracturing blows, and of opposite immunity, after frightful fractures, would find, for most minds, a more satisfactory reference to that category of cases unexplained and inexplicable, and considered, according to the piety of the observer, as chance casualties, or the workings of Providence; the catastrophe or the escape depending on what parts of the encephalon have been injured, and on the recuperative power of the *vis medicatrix naturæ* in the individual.

It is even claimed (p. 7—referring to case 2) that a compound comminuted fracture of *tibia* coincident with compound comminuted fracture of temporal bone, so diminishes the shock, as to give to the patient a better prospect of recovery, than if his head alone were hurt, and hurt without a fracture; and, yet, this patient died, and died early with two most favorable fractures—compound comminuted fracture of the head and leg.

Publish it not in Ashkelon, tell it not in Gath, lest some suave assassin, when he breaks a skull, shall, in mere considerate kindness, synchronously crush his victim's leg with a comfortable compound comminuted fracture—only to ease the shock. In prosecution for mayhem, the fractured leg could be pleaded in mitigation of damage. The surgical rule, which holds it better to have simultaneous smiting on both cheeks, is more sweeping than the sacred rule, "If a man smite thee on

one cheek, turn to him the other also." If the question be to break or not to break a skull! the ram, the billy goat, and the butting negro will all vote for blows which do not break; and many other thinking people will agree with them. In all seriousness the writer cannot think the patient better for the fracture. Other things being equal, the less there is of breaking, the less marring of the human form divine, the better is it for the patient in fate and in feeling. And the inner works of Erichsen's fallen watch (see p. 7) escape, not because the crystal is broken, but because the inner works were not hurt.

The author's cases seem not to help his argument, which claims less danger for the fracturing and more for non-fracturing blows.

Case 1. Compound fracture of skull; died.

Case 2. Compound comminuted fracture of both skull and leg; died. The author claims that this patient was killed by the fractured leg, that same friendly fracture which did so much to diminish shock. *Save us from our friends.*

Case 3. Had no hurt of head at all, and no bearing on this question, except as remote analogy may show that a fall of forty feet, not breaking the enclosing walls, may yet dislocate the viscera. In this case the heart was displaced. The patient got well; *no fracture.* A fracture of skull or thorax would doubtless have added to the danger of this case.

Case 4 (p. 4). Compound comminuted fracture of skull; recovery.

Case 5 (p. 4). Necrosis of skull (suspected syphilis) trephined; recovery. This case has no reference to blows on the head.

Case 6 (p. 5). Compound comminuted fracture of arm, and a supposed fracture of skull; died. This case is of doubtful force on the question of greater or less danger, for it is impossible to say, if certain fracture could have lessened the danger. In this case the interest is found mostly in its use by the author to illustrate the claim to "cut in order to establish diagnosis." It were a more fit description to say that the cut was made to obey the indication of the then most probable attainable diagnosis. For it is plainly said that several skilful surgeons diagnosed a fracture, and were only undeceived by the cut which

was made as the commencement of a trephining called for by the diagnosis of concurring doctors.

On page 10, the author says: "Yet there are risks in the future from omission to elevate the depressed bone, the certainty of the occurrence of which no man may be able to determine, which justify the employment of the trephine." This suggestion should be received with great caution lest the danger of trephining be added when it must be evident that the condition on which depend the uncertain risks in the future may be, by extent and location, beyond the help of the trephine. The signs of present and prospective danger, and the promise of benefit by the trephine ought to be very decided to "justify the employment of the trephine."

In all the cases of the author's paper the trephining was so clearly within the scope of existing rules, that the paper has not made a good plea for eulogizing the rules, or for "granting more warrant for occasional deviation."

The surgeon's full duty has been done when, with skilful hand, he promptly executes the dictates of enlightened judgment (deviating from rule if need be), and, looking only to the patient's well-being, leaving all consequences (even the surgeon's own safety) to take care of themselves. J. B.

THE MEDICAL REGISTER AND DIRECTORY OF THE UNITED STATES. Systematically arranged by States. By S. W. Butler, M. D. One large octavo volume, 854 pages, on fine paper. Bound in extra cloth. Price $6.

The title page sufficiently indicates the scope and design of this work, and for the first guide of the kind in this country is more accurate than we had thought possible; with this standpoint to work from, future editions may include the names of more members of the profession, and define their status more accurately; particularly through the assistance of the registration now required by law in several of the States. But the present work is invaluable to all who may have occasion to communicate with the medical profession of any particular city, State, or the country at large.

This work is sold by subscription, or will be sent by mail from the office of publication (No. 115 South Seventh Street, Philadelphia), carriage free on receipt of the price.

THE COMPLETE HAND-BOOK OF OBSTETRIC SURGERY, or Short Rules of Practice in every emergency from the simplest to the most formidable operations connected with the Science of Obstetricy, with numerous illustrations. By Charles Clay, M. D. From the third London edition, 12mo., pp. 328. Price $2.25.

[For Sale by the St. Louis Book & News Co]

In issuing the present *third* edition the author informs us he has carefully revised, considerably enlarged, and added illustrations; still the author reminds us in the preface that it is designed to be a practical *hand-book*, rather than a system: that its aim being practical, lengthy details, contested points, or argumentative disquisitions have been excluded.

It seems needful that so much should be said, otherwise the title page might mislead. "Short rules for every emergency from the simplest to the most formidable;" still we think the "postural treatment," for prolapsus of the cord, and the tampon in placenta previa, should have been included; also "every emergency" might include gastrotomy for uterine fibroids not possible to treat otherwise, and no longer endurable. Still these omissions do not materially detract from the value of the work; as a book for ready reference, to prompt the memory and suggest resources of recent adoption, it will generally be found reliable.

ILLUSTRATIONS OF THE INFLUENCE OF THE MIND UPON THE BODY IN HEALTH AND DISEASE. Designed to Educate the Action of *the Imagination*. By Daniel Hack Tuke, M. D., M. R. C. P., etc., etc. Philadelphia: Henry C. Lea, 1873, pp. 415, 8vo.

It is intended by the above title, to convey the design of illustrating by a large number of cases, the effect of the mind (comprising therein intellect, emotion, and volition), for good or evil, upon the body with which it is associated. The special senses are included under body. The author hopes by the collection and classification of these cases, to make the matter available for good; and to leave the matter no longer so largely under the influence of prejudice among the profession; or to the notion of mystery or superstition in the popular mind. In other words, he endeavors to bring the many curious manifestations under psycho-physiological laws.

The work comprises eighteen chapters; an appendix or analysis of the principal illustrations amounting to 430—154 of which are referred to the *intellect*, 243 to the emotions, and 33 to the *will*; a list of the principal works referred to; and a full index.

Physicians should know more of the effects of the states of the mind on the body, and then they would more frequently be able to unravel obscure cases of so-called nervous affections. Ninety different works are referred to in the list, including English, French and German.

To any one especially interested in study of this kind, the work before us will be valuable. G.

OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF CHOLERA. By John Murray, M. D.

This is a neat little monograph of fifty-eight pages, written, the author tells us, at the request of numerous professional friends, and with the view of aiding in the establishment of a system of rational treatment of cholera. The high professional standing of the writer, and his long residence in India, are, in themselves, a guarantee of merit.

Dr. Murray divides cholera into four stages, and lays particular stress on the importance of attention to early symptoms. He says: "Those who do not recognize the presence of the disease, till collapse has supervened, have some reason for saying that medicines are useless.

The pathology of the disease is very concisely stated; and yet, nothing appears to have been omitted that was necessary to a complete *resumé* of all that is known on the subject.

The remedies proposed are not new, and their success in the hands of the author, must have been due to his mode of prescribing them.

The chief merit of the work consists in the minute and accurate analysis of the symptoms pertaining to the different stages of the disease, the careful noting of the indications, and the treatment which experience has shown to be the most appropriate for each.

We cordially commend this little volume to the favor of the profession, as a convenient hand-book, concise, and suggestive. G. H.

BOOKS AND PAMPHLETS RECEIVED.

STILLE'S THERAPEUTICS AND MATERIA MEDICA. A Systematic Treatise on the Action and Uses of Medical Agents. Including their description and history. By Alfred Stille, M. D. Fourth edition, thoroughly revised, and enlarged. In two volumes. Philadelphia: Henry C. Lea, 1874.

For Sale by the St. Louis Book & News Co.

CROUP, in its Relations to Tracheotomy. By J. Solis Cohen, M. D. Philadelphia: Lindsay and Blakiston. Price $1.

[For Sale by the St. Louis Book & News Co.]

CLINICAL LECTURES ON DISEASES OF THE NERVOUS SYSTEM. By Wm. A. Hammond, M. D. Reported, edited, and the history of cases, prepared with notes, by J. M. B. Cross, M. D. New York: D. Appleton & Co. 1874.

[For Sale by Gray, Baker & Co.]

THE ADDRESS IN OBSTETRICS Delivered before the Medical Society of the State of Pennsylvania. By William B. Atkinson, M. D. Philadelphia: Collins, Printer. 1874.

SIGNIFICANCE OF THE PRÆSYSTOLIC MURMUR. By Frank Donaldson, M. D.

REPORT OF 105 CASES OF OPERATIONS FOR CATARACT. By B. Joy Jeffries, A. M., M. D., Harvard.

THE BUILDING OF A BRAIN. By Edward H. Clark, M. D., Author of "Sex in Education." Boston: James R. Osgood & Co. 1874. 12mo. pp. 153. Price $1.25.

[For sale by Gray, Baker & Co.]

INFANT DIET. By A. Jacobi, M. D. Revised, enlarged and adapted to popular use. By Mary Putnam Jacobi, M. D. New York: G. P. Putnam & Sons. Price 75 cents.

(For Sale by Gray, Baker & Co.)

INJURY OF THE SKULL. By C. C. F. Gray, M. D., Surgeon of the Buffalo General Hospital.

FIFTH ANNUAL REPORT OF THE SUPERINTENDENT OF THE INSURANCE DEPARTMENT OF THE STATE OF MISSOURI. Part 2.—Life Insurance Companies. Jefferson City, 1874.

ESSENTIALS OF THE PRACTICE OF MEDICINE. A Hand-book for Students and Practitioners. By Henry Hartshorne, A. M., M. D. *Fourth edition thoroughly revised.* With 100 illustrations. Philadelphia: Henry C. Lea, 1874.

[For sale by Gray, Baker & Co.]

Without doubt the best book of the kind published in the English language.

THE PHYSICIAN'S VISITING LIST FOR 1875. Twenty-fourth year of its publication. *A necessity to every physician practising his profession.*

[For Sale by the St. Louis Book & News Co.]

CLINICAL LECTURES ON VARIOUS IMPORTANT DISEASES. Being a Collection of the Clinical Lectures, delivered in the Medical Wards of Mercer Hospital, Chicago. By Nathan S. Davis, A. M., M. D., Prof. of Principles and Practice of Medicine, etc. Edited by Frank H. Davis, M. D. Second edition, 12mo. pp. 283. Philadelphia: Henry C. Lea, 1874.

[For Sale by the St. Louis Book & News Co.]

ON DEAF-MUTES AND THE METHOD OF EDUCATING THE DEAF AND DUMB. By Lawrence Turnbull, M. D. Also, recently issued, a Clinical Manual of Diseases of the Ear, by the same author. Philadelphia: J. B. Lippincott & Co., Publishers, 715 Market Street.

PETERSON'S MUSICAL MONTHLY for November. A treat for amateurs in this line.

ERYSIPELAS AND CHILD-BED FEVER. By Thomas C. Minor, M. D. Cincinnati: Robert Clark & Co., Publishers, No. 65 W. Fourth Street, who will send this book on receipt of the price, $2, prepaid.

VACCINATION. A report by Dr. E. L. Griffin, of Fond Du Lac, Wisconsin, 1874. 62 Oneida Street, Milwaukee.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. By Gaillard Thomas, M. D. Fourth edition, thoroughly revised, with 186 illustrations on wood. 8vo. pp. 800. Philadelphia: Henry C. Lea.

[For Sale by the St. Louis Book and News Co.]

Editorial.

"PROOF SHEETS" ASTRAY.

While we acknowledge the compliment of the Editors of the *Missouri Clinical Record*, in using *sixteen pages of our proof sheets*, "*verbatim et literatim*"—compare October numbers—for *their* proceedings of the St. Louis Medical Society, their failure to give us credit for the same, we leave to the profession and press to pass judgment on.

When we attend the meetings of a medical society, and note its transactions, and compile from the proceedings furnished by the Recording Secretary, and the notes taken by ourselves, a carefully revised copy for our printers, and they set the same to type, the "proof sheets" are as much our property as our horse and carriage; and the Editors of the *Missouri Clinical Record* in using proof sheets taken from our office, *without our knowledge or consent*, are more culpable than the party who takes them.

The circumstance, that we allowed our readers to credit our editorial work to the Recording Secretary, by placing it over his name, does not, in the least, relieve the editors of the *Record*, as they certainly knew our printers were not paid for setting manuscript to type for their accommodation.

DEATH OF DR. FRANCIS EDMUND ANSTIE.

From blood-poisoning; from a slight wound in his finger, while engaged in a post-mortem, on Saturday, the 13th of

September. Widely known to the profession as editor of the *Practitioner*, and the author of many articles on Hygiene and Therapeutics.

Thus has another arduous, incessant laborer fallen a victim to pathological research on the cadaver. From the front ranks of the profession, his untimely death (41 years old) will be mourned throughout the civilized world.

LINTON DISTRICT MEDICAL SOCIETY.

The third semi-annual session of this Society will be held at Fulton, Mo., on Tuesday, November 10th, beginning at 3 o'clock, p. m., and continue in session two days.

The Secretary, Dr. J. W. Lanius, says: "From the responses to the numerous invitations sent, he is warranted in predicting a larger attendance at this meeting than have ever attended heretofore. All regular graduates within the district, are cordially invited to attend and participate in the exercises.

Commutation of fare will be granted on the St. Louis, Kansas City and Northern Railroad."

MEDICAL SOCIETY OF SOUTHWEST MISSOURI.

The Medical Society of Southwest Missouri will hold its first session at Springfield, on the 17th and 18th days of November next. We are authorized to extend a cordial invitation to all regular physicians, residing in that section of the State, to be present and participate in the exercises of the meeting.

From what we know of the profession residing in Springfield and that section, we hazard nothing in predicting a most interesting and profitable meeting.

HOSPITAL CONSTRUCTION.

Since issuing the October number in which reference was made to the advantage to be derived from the *pavilion* plan of constructing hospitals, we have received the September number of the *Western Lancet*, from San Francisco, in which is an article at length on this all important subject.

We are glad to learn that the pavilion plan, recommended by John M. Woodworth, M. D. (Supervising Surgeon of Uni-

ted States Marine hospitals), has been adopted by the United States government, and that a contract is being executed at San Francisco for hospital accommodations for *the number of beds usual in the old Marine hospitals;* the average expense of construction of which was $400,000 while the pavilion plan for the same number of beds including a surgeon's dwelling house, cost $58,789 56, which shows we were safe in saying "one-fourth the expense." Here is demonstrated an economy of seventy-five per cent. on the cost of construction; while the saving of human life and suffering is incalculable.

The question is, will our "City Fathers" reconsider and modify the plan adopted, to meet the views of sanitarians and, indeed, all intelligent physicians who are advised of the comparative results of large hospitals with numerous wards, with those constructed with separate one story wards? It would be a sad reflection upon the intelligence of the parties entrusted with this interest to build the hospital proposed, besides being a disgrace to the city so long as it should be permitted to stand.

We hope the building committee from the City Council will look carefully through this subject before the work of construction is resumed.

A NATIONAL UNIVERSITY.

It was a favorite scheme of the founders of the Government to have established a National University at the seat of government. Recently, by concerted movement of the friends of the enterprise, a bill has been framed by the committee appointed by the National Educational Association and presented to Congress, which was received with some favor, but it seems was not passed. At the last meeting of the National Educational Association there was appointed another committee to engineer the passage of the bill through Congress, and the aid of the press is invoked. Theoretically a National University at the capital, fully equipped with endowment of a million of dollars a year is good.

But before we indulge national pride and personal ambition in so wholesale a way it may be wise to heed the "second sober thought" and ask if we can afford it just now? While it may

be true that no other institution in the country can furnish the means, it by no means follows that the Federal Government has the means to appropriate. If the States are in debt *much* the general government is in debt *more*. For Congress under existing circumstances to appropriate *twenty millions of dollars* for a University is very much like a farmer purchasing a thousand dollar grand piano while his farm is mortgaged until it takes the juice of every apple to pay the interest. But he must take the piano because his neighbors are not able. Such is the argument. We are a young people yet, and quite as forward in the University interest, as in many other departments of culture.

The danger of collecting a large number of young men at the National Capital to share more or less in the excitements and dissipation prevalent there, may itself outweigh any advantage, to be derived from proximity of libraries, cabinets, etc. Again, already our tendencies to centralization of power and influence, are not inconsiderable, or free from danger to the perpetuity of our present form of government. We are not prepared to sanction this measure.

THE subscribers to the London *Practitioner* will be pleased to learn that Dr. T. Lander Brunton, is to be the successor of Dr. Anstie.—*Medical Times.*

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

SEPTEMBER, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	61.5	84.5	18	64.5	87.0
2	65.5	84.5	19	58.5	71.5
3	68.0	82.5	20	60.5	70.0
4	62.0	78.5	21	54.0	66.5
5	62.5	79.0	22	54.0	76.0
6	65.0	89.5	23	56.0	81.0
7	69.5	89.5	24	66.0	71.0
8	71.0	88.5	25	66.5	74.5
9	72.0	89.0	26	68.5	83.0
10	71.0	93.0	27	54.0	73.5
11	70.0	91.5	28	51.0	69.0
12	69.0	91.0	29	51.0	77.0
13	68.5	91.0	30	54.5	73.0
14	71.0	900			
15	54.0	680			
16	52.5	72.5	Means	62.2	80.5
17	63.0	79.5	Monthly Mean	71.3	

Quantity of rain: 1.86 inches.

Mortality Report.—City of St. Louis.

FROM SEPT. 19, 1874, TO OCT. 23, 1874, INCLUS.

Abscess, not defi'd	2	Conges. bowels	1	Hypertrophy	1	Paralysis	3
" Liver	1	Diptheria	9	Hydrocephalus	3	Paraphlegia	1
Accident	10	Debility	19	Hæmetemesis	1	Poison	1
Alcoholism	3	Dysentery	24	Hemorrhage Pul	1	Premature Birth	4
Angina	2	Diarrhœa	16	Inanition	7	Pneumonia	16
Asthma	2	Dropsy	9	Icterus	3	Peritonitis	4
Apoplexy	10	Erysipelas	1	Intussception	2	Parotitis	1
Atrophia	3	Fever, Congestive	4	Ileo Colitis	2	Summer Complaint.	15
Brain, cong. of	11	" Typhoid	13	Liver, congestion	4	Suicide	2
" inflam. of	1	" Scarlet	6	" disease	1	Strang. of bowels	1
" soft'g of	5	" Puerperal	4	Lungs cong	1	Trismus	20
Bronchitis	7	" Nervous	2	Laryngitis	2	Tetanus	8
Bright's Disease	1	" Surgical	1	Marasmus	42	Variola	37
Cancer, not defined	2	Fungus Cerebri	1	Meningitis	24	Varioloid	1
Cirrhosis of liver	2	Heart dis. not defi'd	3	Morbus Masc.	1		
Cerebritis	2	" Malform	1	Myeletis	1	Total	511
Consumption	63	" Hypertrophy	1	Nephritis	1	Stillborn	45
Convulsions	34	" Fatty degen	2	Old Age	9	Under 5 years	259
Croup	6	" Paralysis	2	Ovarian Tumor	1		
Cyanosis	1	Hepatitis	7	Occlus Œsoph	1		

THE SAINT LOUIS

Medical and Surgical Journal.

DECEMBER, 1874.

Original Communications.

THE MUTUAL RELATIONS EXISTING BETWEEN PHYSICIANS AND DRUGGISTS—REPORT OF THE CHAIRMAN OF THE COMMITTEE APPOINTED BY THE ST. LOUIS MEDICAL SOCIETY.

Gentlemen :

The relations existing between druggists and practicing physicians are necessarily and unavoidably very intimate and intricate, and the mutual confidence existing between the two professions should be encouraged and increased by every honorable means.

The relations of both to the public are more momentous and serious than most people seem to understand or appreciate ; for the health and life of every individual in the community is more or less at the mercy of the doctor and the pharmacist, and yet, in the vast majority of cases, individuals care nothing for their physicians and druggists, except the use they can make of them. Education, acquirements, refinement and hon-

esty exert but little influence in advancing the pecuniary interests of either profession; for the humbug and hypocrite in our profession, like the ignoramus and swindler in the drug business, is often much more likely to grow rich through his rascality and deception than the thoroughly educated and honest man is through his endeavors to do what is right. The palaces of the patent medicine men throughout the country, and the positions that ignorant and unqualified pretenders occupy in almost every community, verify my statement. The one accomplishes his purposes by bold and unblushing lies—in the form of advertisements scattered broadcast throughout the length and breadth of the land; the other, either by adopting the same plan, which we term quackery, or by getting himself foisted upon the community as a professor, when he does not know the alphabet of his profession. The one is an independent, outspoken, defiant species of humbuggery; the other, a joint-stock, mutual-admiration and underhanded mode of deluding and deceiving the public. Both are wrong, and the one should be discountenanced as much as the other. No man should be allowed to dispense drugs unless he has previously proven himself competent by a rigid examination before a board of practical pharmacists (not professors of pharmacy).

Nor should any physician be allowed to style himself professor, or to be so styled by his mutual friends, unless he has proven himself possessed of profound knowledge, and peculiar fitness for imparting knowledge to others.

By such radical changes only can we expect to purge either profession of their abuses, or to elevate their members to the high and honorable position which they

should hold as co-laborers and workers in the cause of sick and suffering humanity.

And these reforms can only be accomplished through wise and judicious legislation. The experience of the past, in our own profession, ought to convince the most determined opponents to legislation, that without it we can accomplish nothing, literally nothing, towards bettering our condition.

The equalizing spirit of the present age, originating in the unrestricted freedom of thought, word and action inherent in every free government, whilst it has accomplished much good in every sphere of life, has likewise done much harm to our profession, by removing all legal protection from it. For centuries, only a few schools were granted the privilege of graduating doctors and none but such graduates were allowed to practice the art. Under this system our profession flourished, and was respected as a privileged class, and the people willingly acquiesced in the arrangement.

The title of M. D. was respected and honored in every community, even though its possessor had but moderate attainments.

Such was the condition of our profession in the early part of the present century. The leading medical men of that period were recognized not only as being eminent in their art, but as leaders and benefactors in the communities where they resided. The names of Hosack, of Francis, of Valentine Mott, of Rush, of Physick, of Dewees, of Warren Stone, of Nathan R. Stone, and a host of others equally eminent in their day, were household words, and will be transmitted to coming generations long after the leading surgeons and physicians of the present day (though far more skilled and

accomplished than their predecessors) have been forgotten. The multiplication of medical schools has so cheapened the price of diplomas, that persons who are little better than idiots may become legally qualified to practice medicine, and the public do not seem to appreciate the fact that the unrestrained practice of our art by pretenders and quacks and legalized ignoramuses and scoundrels, is not only a source of danger and death in every community, but that it is an infamous outrage upon the refined, educated and honorable members of our profession; that class of men who have done more to advance science and the pursuit of knowledge for the bettering the condition of their fellow-men, than all others put together.

The diploma or certificate of proficiency which confers upon us such sacred privileges, and imposes upon us such momentous responsibilities, should be something more than a mere warrant to kill or cure, and should not be available to ignorant, immoral or dishonest men. We who have it in our power to exert so much influence upon human life and health should be, and are held to a more strict responsibility than those who follow trades and professions which have no particular bearing upon the well-being and safety of the public. It is demanded of every artizan that he shall use ordinary care and skill in his calling, but it is exacted and expected that we should use extraordinary caution and judgment in the practicing of our profession.

So, too, with the apothecary, who, as the agent or assistant of the physician, proclaims himself to the world as a compounder of medicines, and not as a mere dealer in drugs, certain scientific attainments and requirements are demanded as a safeguard to the public. He should

not only know what the various drugs are, and their qualities (and how they are to be used), but how to select, prepare and combine these according to the physician's direction.

Most persons being entirely ignorant of the effects of medicine and the qualities of drugs, trust entirely to the superior knowledge of the physician and the dispensing druggist. Both claiming such scientific acquirements legally, assume similar responsibilities, and thereby make themselves liable for any damage caused by their ignorance or carelessness. Both, in a great measure, depend upon each other for safety and success, and consequently, should work harmoniously together, and carefully guard each other's rights, privileges and reputation in every honorable way. The dispensing pharmacist should remember that in the compounding of every prescription he assumes a double responsibility, one to the patient and one to the physician; and the physician should remember that in writing every prescription he should do so with care and a just appreciation of the double responsibility that he is assuming, first to the patient and next to the apothecary. No medical man should ever give an incorrect or illegible prescription to a patient, and no druggist should ever dare to compound one which he does not fully understand.

Right of Property in Prescriptions.—A prescription is nothing more nor less than a written order or direction from the physician to the apothecary to furnish or compound certain medicines for the patient, to be used by him according to the written or verbal directions given him at the time. It is undoubtedly the property of the author, and neither the patient nor the apothecary acquires any right to make use of it, except for the case

and purpose specified. It is merely a safe and convenient mode of communicating instructions from the physician to the druggist. Formerly it was the general custom for the physician to dispense the drugs himself, and no prescriptions were needed. But at the present day, in most cities and towns, the druggist prepares and furnishes the medicine. "This arrangement is beneficial to both professions, as well as to the public, and from it arise certain implied contracts. When a physician sends a prescription to an apothecary to be compounded, there exists between them a tacit understanding or agreement that such prescription, when it is original with the practitioner sending it shall not be made public. In such case it would be neither honorable nor honest for the druggist to deprive the author of the benefit of it by dispensing it indiscriminately. The originator is the only person who would have the right to do so if he choose to exercise it. But the apothecary certainly does not obtain the same privilege by gaining a knowledge of the ingredients and proportions which he acquires in compounding the prescription."

The prescription is only a single order given the patient upon the druggist for use, at that time, unless otherwise directed by the physician, and if the patient have it repeated without further advice, he does so at his own risk, still we cannot prevent him from using a copy of said prescription as long as he chooses. Universal custom and legal decisons have sanctioned this right. The druggist who refills a prescription without an order from the doctor thereby assumes all responsibility for accidents that may accrue therefrom. He has really no equitable right to use the prescription in any manner without an order from the physician. Professor

Ordronaux says, "But although as has been already shown, the party paying for the prescription has an undoubted property in the paper, and a right to the *personal use* or the formula, it is clear that he acquires thereby no absolute property in the latter. That he may use it personally as often as he pleases, cannot be doubted, for the use is precisely what he has purchased and paid for, but he has no right to give it to others."

The prescription, then, continues the property of the author, and the apothecary has no claim to it whatever, except as a record. The custom, however, of renewing prescriptions without consulting the physician has grown to be so common that it will be difficult to correct it, but by concert of action between physicians and druggists we may check the growing evil, and in a great measure do away with it. It has originated mainly from the desire of the patient to avoid the expense of consulting us a second time, but we, too, are very much to blame for it. Many medical men keep no record of their prescriptions, and when patients return to them, stating that the medicine which was ordered for them has acted so well that they wish to get it repeated, the doctor, not remembering the formula, directs him to do so. Others are actually too lazy to write a new prescription, and direct them to have it renewed. This practice has become so much abused that unless we get our whole fee in advance, or direct the druggist not to repeat the prescription, we never again see the patient, who continues repeating his medicine until he is cured, and concludes that we have been well paid for our advice by a single fee. Agreement among druggists not to refill prescriptions, except upon a written order from the physician, would relieve them of all responsibility in case of a mis-

take or accident; would save them much trouble in hunting up old prescriptions, and if the custom was general, would rather increase than diminish their business, whilst it would restore to us much that legitimately belongs to our profession. Liberality is one of the cardinal virtues of our profession, but it will hardly be expected that we should throw away our knowledge.

The Practice of Apothecaries Prescribing.—The majority of the regular profession in all large cities, having relinquished the right to compound, dispense and sell drugs, and having voluntarily assigned that portion of their business to the apothecary, very naturally expect that the druggist, unless he be also a regular physician, will not assume the functions of the medical practitioner, although the statutes of some of the States do not prevent him from so doing. We know how great the temptation may be in many cases, not only from policy but for profit, for him to undertake the healing of the sick, or the recommending of patent medicines, the composition of which he knows nothing. But he should remember that from the nature of his business, the public looks upon him as being competent in some cases, to give medical advice, and that if he does so, he thereby assumes all responsibility for mistakes made, and is rendered liable to a certain degree for damages. He does not occupy the same irresponsible position as one who is known to be entirely unskilled in medicine. No apothecary is either compelled or expected, in any case, to assume the functions of the physician, and we have a right to demand that he should not do so, for, in very many instances he not only directly robs us but through his ignorance brings our profession into contempt. He must re-

member that pharmacy constitutes both an art and a science within itself, and is sufficient to occupy his attention, without his encroaching upon the field of practical medicine, and that when he assumes to do that which he knows he is incompetent to perform and thereby kills a human being, he will be held liable as a criminal, and might be convicted of voluntary manslaughter.

Mutual Responsibility of the Druggist and Physician.— As stated above, no physician is excusable, much less justifiable, in scratching off an incorrect or illegible prescription, but his ignorance or negligence will not acquit the apothecary of blame, for attempting to compound any prescription that he does not thoroughly understand. For though he innocently mistook the language of the prescription, yet if the exercise of a reasonable care would have warned him that he was preparing something which would inevitably kill, it would be criminal in him to go on. He acts as the physician's agent, and should use reasonable care to protect both his patron and the patient, and he must remember that he is engaged in a very serious business, and that what might be considered ordinary care where human life was not at stake, might be construed as culpable negligence on his part. Apothecaries, so far as the performance of their legitimate duties are concerned must be placed upon a similar footing of responsibility with physicians and surgeons.

Negligence consists in the omitting to do something that a reasonable man would do, or the doing of something that a reasonable man would not do; in either case causing, unintentionally, mischief to a third party. Negligence of one man does not excuse that of another.

"Under the doctrine of joint liability, the apothecary who compounds, knowingly or not, a noxious prescription, commits a joint tort with the physician who utters it. Nor, is there any escape for either party by showing a want of wrong intention, provided the prescription was noxious *ab initio.*"

"Neither mistakes nor accidents will be held as a justifiable excuse from civil responsibility in a physician or pharmacist. And although the physician and pharmacist undoubtedly carry on a legal business, yet death resulting from negligence in discharging it, is undoubtedly manslaughter."

Such are some of the ideas that have presented themselves to your committee in considering the mutual relations which exist between physicians and pharmacists, and in order to carry into effect the resolutions which we now offer, should the Society deem them worthy of notice, we recommend the appointment of a committee of three from this Society to confer and act jointly with a committee of four from the Pharmaceutical Society in preparing and presenting to the next legislature of Missouri a suitable act for the regulation of the practice of pharmacy and sale of poisons in the city of St. Louis, and State of Missouri.

Resolved, That any beneficial reform in medicine or pharmacy can only be accomplished by rational and uniform legislation throughout the Union, and that where human health and life are at stake, it is the bounden duty of all civilized communities to recognize the fact by appropriate legislative enactments.

Resolved, That we hail with satisfaction and approbation the legislative recognition already extended to medicine and pharmacy in several of our States, and recommend that wise legislation be urged upon every commonwealth in order to provide for the public safety, and to protect the rights of all parties.

Resolved, That thirty years' experience in elevating the standard of medicine by the multiplication of schools and the cheapening of diplomas has proved a signal failure, and that we discountenance and discourage a similar suicidal and degrading system which is being inaugurated for pharmacy by unscrupulous and ambitious aspirants, who, for the sake of personal gain and notoriety, are willing to sacrifice both their professions and their friends.

Resolved, That as pharmacy is a hand-maid to practical medicine, and pharmaceutists depend in a great measure upon the respect, confidence and patronage of physicians, we claim that no apothecary has a right to advertise, recommend and act as agent for a secret nostrum whether it be the composition or exclusive property of himself or others, for by so doing, he makes himself a party to the fraud, practiced upon an ignorant and confiding public, and thereby forfeits all claim to recognition from respectable and honorable practitioners, for such practice implies either disgraceful ignorance or fraudulent avarice.

Resolved, That, as members of this Society, we are opposed to the dangerous practice of patients and druggists renewing a preseription without consulting its author to ascertain whether such medicine should be continued or not, for it is well known that many medicines have a cumulative effect and thereby become dangerous and destructive.

Resolved, That we will favor legislation that will prohibit the dangerous practice of apothecaries renewing prescriptions without the authority of the physician, and that until such legislation be effected, we earnestly request all pharmacists to restrain from repeating prescriptions as far as they can, without a written order or endorsement from the physician and ask them to destroy all prescriptions after retaining them in their possession for thirty days.

Resolved, That although as a common vendor of drugs, the apothecary can sell his goods to any adult without restriction, still as such license is likely to compromise individual and public safety, we think that statutory restrictions should limit or prevent the sale of poisons at retail, to the filling of prescriptions duly and plainly signed by responsible practicing physicians, and that ordinances controlling this matter should be enforced in all cities and towns where the general State law does not cover it.

Resolved, That as the physician, as the originator of the prescription and in the composition of the formula, acquires a literary property, belonging to him as its author, he has a right to sell the use of the same to a patient for his own benefit without thereby invalidating his claim to his original ownership, and that the apothecary by compounding the same, acquires no legal property claim in it except as a matter of record to justify himself in compounding the same, and his right in the prescription is simply that of a custodian, whilst that of the patient pertains only to the individual use of the prescription.

THOMAS KENNARD, M. D.
C. H. HUGHES, M. D.
H. A. BUCK, M. D.
} *Committee.*

HYPODERMIC INJECTION OF ERGOT IN POST-PARTUM HEMORRHAGE.

Read before the Medical and Chirurgical Faculty of Maryland, Annual Session, April, 1874, by P. C. WILLIAMS, M. D., of Baltimore.

I hazard nothing in saying that violent post-partum hemorrhage is one of the most serious accidents that come under the care of the physician. Anything, therefore that suggests additional means of relief in this alarming complication deserves careful consideration. The known effects of ergot in promoting uterine contraction, long since determined me to try its hypodermic use whenever I was called upon to treat post-partum hemorrhage.

The first opportunity that presented itself was in the case of Mrs. R., a young woman of fine physique, in good health, and who had no untoward symptoms during her pregnancy. Mrs. R. was confined with her first

child in October, 1873. She had a long, exhausting labor, during which I gave four or five drachm doses of fluid extract of ergot, with very little effect. After the head had remained for some time in the cavity of the pelvis without apparent progress, I determined to apply the forceps. Chloroform was administered and the child was extracted without difficulty.

The placenta was expelled in due time, and everything progressed satisfactorily, until suddenly, without appreciable cause, the uterus became completely relaxed, and produced a profuse hemorrhage, which exhausted the patient with great rapidity. After using the customary remedies, such as pressure, insertion of the hand into uterus, ice externally, and ice in the uterus, etc., without the slightest effect, I injected half a drachm of fluid extract of ergot in the inside of the left thigh. Immediately I again thrust my hand into the uterus, and my anxiety was relieved by discovering that the uterus was beginning to contract vigorously, and it promptly expelled my hand from its cavity.

The contraction remained firm, and the hemorrhage was completely stopped. The convalescence of this patient was rapid and satisfactory.

The second case to which I call attention is that of a lady about 35 years of age, of medium height, frail figure, and rather contracted pelvis. She has been married ten years. Prior to the confinement in question, she had but one child; which was born with extreme difficulty about eight years ago. During her recent pregnancy, her general health was good. Towards the latter portion of her pregnancy she suffered very much from pain in the right hypochondriac region, which was very violent up to the time of her confinement, and to-

tally forbade her lying on the left side. Her labor was long and severe. During the last few hours of it I kept her more or less under the influence of chloroform, and occasionally gave ergot to prevent the chloroform diminishing the activity of the pains. No progress being made, I applied the forceps and delivered the child. After waiting a short time for the expulsion of the placenta, I endeavored to remove it by traction upon the cord, which unfortunately broke. Examination then revealed that the placenta was adherent over its entire surface. I again administered chloroform, and after prolonged and tedious effort succeeded in detaching the placenta. The uterus contracted well.

I went across the room to superintend an inefficient nurse, but in a little was recalled to the bedside of the patient by a gush of blood which was distinctly audible. The flooding was alarmingly copious.

Remembering my experience in the former case, I immediately injected half a drachm of fluid extract of ergot on the inside of the thigh.

The flooding was promptly arrested, and did not return. My patient was prostrated to such a degree, however, that for several hours she could not make the slightest movement without producing serious attacks of syncope.

This condition was relieved by a few hypodermic injections of brandy.

This patient improved rapidly, and was soon restored to her usual health.

The third case occurred on the 13th of March, 1874. Mrs. S., about 35 years old, and mother of several children, was a patient of Dr. Whitridge.

Mrs. S. had several severe uterine hemorrhages du-

ring the latter part of her pregnancy, but was always relieved by a few days' rest in bed. Dr. Whitridge was sent for early on the 13th of March; but before he reached the house, the patient was bleeding so profusely that she sent for Dr. Hartman, who lives in the immediate neighborhood. Dr. Hartman soon discovered that he had to deal with a placenta prævia. He promptly "turned" and delivered the child and the placenta. The patient seemed to be doing well, and the Doctor went home. Shortly afterward, Dr. Whitridge arrived and found Mrs. S. flooding to such a degree as to render her pulse almost imperceptible. The Doctor resorted to the usual treatment without avail. He then injected diluted subsulphate of iron into the vagina and uterus. He then sent for me to see her in consultation with him. In the meantime, finding that the flooding still continued, he injected fluid extract of ergot hypodermically. This injection arrested the hemorrhage before I reached the house. Her exhaustion was so extreme that we administered a second hypodermic injection of ergot to guard against the recurrence of hemorrhage The hemorrhage did not return, and the patient was restored to health by liberal diet and tonics.

I have thus given three cases of post-partum hemorrhage which present three different conditions.

The first was a case of uncomplicated labor, but slow and tedious, producing great fatigue, which was the probable cause of the subsequent uterine relaxation and the hemorrhage. The administration of chloroform may also have been a predisposing cause of the hemorrhage, although I was careful, as I always am, to accompany the use of chloroform with the internal administration of ergot.

In the second case, chloroform was also administered, and its use was much prolonged by the necessity of tearing away the adherent placenta.

The prolonged use of chloroform and the adherent placenta were doubtless the causes of the flooding in this case, nor was it prevented by the free use of ergot by the stomach.

In the third case no chloroform was used, yet the flooding was quite as great as in either of the other cases.

In the first and third cases, various means were resorted to without the slightest effect, until ergot was given hypodermically. In the second case, nothing was used but the hypodermic injection of ergot.

In these three cases the effect of the hypodermic was almost instantaneous, and it was permanent.

It seems to me, therefore, that the hypodermic use of ergot offers a safe, prompt, and efficient remedy for post-partum hemorrhage; and I earnestly advise its administration. In the cases here reported I used the fluid extract of ergot. It produced no abcesses, and was entirely satisfactory in its effects. According to the experiments of Dr. Squibb, of Brooklyn, ergotine does not represent the full therapeutic value of ergot and therefore cannot be relied upon. Dr. Squibb, at the sugestion of Dr. Marion Sims, has made a *solid extract* which is very efficient, and has been frequently used in New York and elsewhere for the treatment of uterine fibroids. The solid extract is rendered fluid by "rubbing it up" with water, in the proportion of one grain of the extract to one minim of water, when it is available for hypodermic use.*

* This is doubtless the best preparation of ergot, and should be preferred when it is accessible. The fluid extract can always be procured, and its effects are so prompt and efficient that I have no hesitation in advising its administration whenever the solid extract cannot be obtained.

CROUP AND DIPHTHERIA.

Read before the Medical Society of Central Missouri,
by J. BAKER, M. D.

Having been assigned the duty of discussing the subject of membranous croup, I ask your attention while I present in as few words as possible some remarks on the nature and treatment of this distressing and dangerous disease, together with the differential diagonis of croup and diphtheria.

By the term membranous croup, is to be understood an inflammation of the mucous membrane of the trachea, which may extend upwards into the larynx or downwards into the bronchi, attended with an effusion of a secretion which immediately coagulates. A false membrane or pseudo-membrane is the distinctive feature of membranous croup. The first English author who described the false membrane as the distinctive feature of croup, was Dr. Home, who published a work in 1795 in which he describes two fatal cases of croup in the same family, in both of which false membranes were found in the larynx and trachea. Bretonneau refers to these two cases as examples of malignant angina, which is one of his synonyms for diphtheria. Niemeyer says that "in croupous inflammation the epithelium only is involved, upon which a fibrous exudation is coagulated."

At the present time croup and diphtheria are recognized as two distinct diseases that have been confounded under the name of croup by many writers. The distinctive character of the two diseases I will endeavor to point out hereafter. The fact that croup is more common in moist and chilly weather than in hot and dry weather is evident.

It was remarked by a Scotch physician that he had more summons to attend cases of croup on Saturday nights than on any other nights in the week. He accounted for this strange coincidence by observing that it was a common practice of the women in his country to wash the floors of their rooms on Saturdays; the children of the poorer people on that day were either exposed to a cold, damp room all day, or were sent out of the house to be exposed to inclement weather; so that the

suppression of the insensible perspiration of the skin may be an exciting cause. In these cases, the disease might have been for some days making its inroads and had become more fully developed by exposure. Children of fair and florid complexions, who have an hereditary tendency to tuberculosis, who easily catch cold and are subject to bronchial catarrh and coryza, are more liable to croup than others; there is often an hereditary tendency to the disease. A change of diet from milk and vegetable to animal food, especially when an excess of the latter is given, is favorable to the production of the disease.

Croup frequently commences with sneezing, coryza, catarrh of the bronchial tubes, or bronchitis. The tonsils or fauces are sometimes red, but the disease is at other times entirely confined to the tracheal or laryngo-tracheal membrane, when it commences without any other apparent symptom than a croupy, stridulous cry or cough, which is the first sign to attract attention, followed by a hot skin, quick pulse and thirst, the ordinary concomitants of fever. The croupy, stridulous sound and the difficulty of breathing increase in proportion as the pseudo-membrane increases in bulk; if the disease remain unchecked the skin becomes livid, purple spots cover the body, respiration becomes more and more abdominal and laborious, the pulse ceases, the respiration continues at long intervals after the pulse has ceased to beat, a regurgitation from the stomach, a convulsive movement takes place, and death closes the scene; at least these are the symptoms as they occurred in a case which lately proved fatal. Death from asphyxia.

Sometimes the pseudo-membrane increases in bulk and closes the respiratory passage, which can only be separated from the trachea by softening, by the act of vomiting and coughing, or by art, as for instance, by the passage of a proband armed with a cauterant, as nitrate of silver, an operation which is sometimes difficult in a child on account of resistance and not always unattended with danger. A case occurred in St. Louis a few years ago, where the physician who was in the habit of using this remedy lost his patient whilst the probang was as he thought in the trachea.

In other cases the pseudo-membrane does not adhere firmly; it is easily detached and expelled by coughing, assisted by the operation of an emetic. This form of croup is not quite so dan-

gerous, it is generally preceded by a catarrh or coryza. The rarity with which simple catarrh is complicated with dangerous croup has given rise to the old custom of the salutation of "God bless you," after sneezing.

The inflammation, exudation, and formation of a pseudo-membrane is not peculiar to the trachea and larynx. Mucous membranes in all other parts of the body are liable to the same phenomenon, the intestines, bladder and urethra in the male, the vagina, uterus, and Fallopian tubes in the female, are subject to formations of pseudo-membrane. The natural narrowness of the wind-pipe and the blockade of the passage impeding respiration is the cause of the danger in croup. Pseudo-membranes in the bladder sometimes give rise to dangerous symptoms. Dr. Knox reports in the *Medical Times and Gazette*, August, 1862, a case of a lady who died after suffering severely from retention of urine during her confinement, when a *post-mortem* examination was made by Mr. Spencer Wells, disclosing a condition of the urinary bladder such as was expected from an intense inflammation of the membrane of the viscus, he found a sac seemingly composed of mucous membrane coiled up in the bladder. Dr. Knox observed that he considered the cyst or detached membrane, to be a pseudo-membrane formed in the usual way by an inflamed mucous surface, as we frequently find in cases of croup.

Pseudo-membranes are frequently found in the vagina and uterus. Not long since I was attending a patient suffering from endometritis, and on making an examination with a speculum to ascertain the cause of a severe pain, I found a small portion of pseudo-membrane protruding from the os uteri, with forceps I removed it; the menstrual discharge followed immediately, attended with a speedy relief to the dysmenorrhœa.

Pseudo-membranes frequently form in the intestines, which may become organized and form obstruction to the passage of local matter. Again these pseudo-membranes may not adhere to the walls of the intestine, but may be easily expelled as in the catarrhal form of croup. A few days ago, a patient brought me a half-pint bottle full of pseudo-membranes which his wife had passed from her bowels; he thought they were worms. I have alluded to these cases which may appear to be irrelevant to the subject under discussion, merely to draw attention to the

analogy of croup to inflammation, and its products in other mucous membranes.

Croup and diphtheria are mentioned by some writers in such a manner as to make it a difficult matter to find out a difference between the two diseases. This may arise in some measure from the nomenclature; the word diphtheria, derived from *diphthœia*, a skin, and *reo*, to pour out, would be applicable to croup, diphtheria, or the exudation of lymph in any part of the body. At the present day, we mean by diphtheria a very distinct disease from croup, a disease of a typhoid character, the constitutional symptoms sometimes like typhus gravior, varying according to the intensity of the poison, for I believe it to be a disease caused by a toxic matter in the blood, thus differing from croup, which is not caused by any toxic material in the blood otherwise than the materies morbi furnished by the blood itself from retained secretions. It is frequently epidemic, simultaneous with typhoid fever, erysipelas, and its kindred diseases, and occurs in hot and dry weather as well as in cold and damp weather. In diphtheria the fauces and tonsils are involved, sometimes however only one of the tonsils.

At the commencement of the disease the voice is hoarse, no pain in the throat but some inconvenience and difficulty in deglutition, the fauces become livid, the mucous membrane covered with a yellowish or brownish secretion, which, if removed, the parts beneath assume the appearance of any other structure from which a slough has been removed. The disease extends downwards into the pharynx, and air passages, and in a few days the mucous membrane covered with this peculiar secretion becomes gangrenous. The constitutional symptoms resemble typhoid fever. In diphtheria there may be considerable difficulty in the respiratory process, but not generally to the same extent as in croup. Death rather occurs from failure of strength from the action of the poison on the system than from asphyxia as in croup. If a blister be applied to the skin of a person suffering from diphtheria, the blistered surface will assume the same appearance as the fauces and become covered with the same peculiar secretion. A like result is not to be obtained in croup. If the disease of the fauces and tonsils progress, the morbid product increases in extent, rapidly involving the mucous membrane of the mouth and air passages, nares and Eustachian tube;

the pulse becomes weak and rapid, the skin hot and dry, and the patient may die from cardiac syncope. Diphtheria as well as croup is attended with a coagulable exudation, but differs from it in the exudation being formed not merely upon the mucous membrane but also within its substance. It is of great practical importance to distinguish the two diseases, as the treatment which is beneficial in diphtheria is improper or dangerous in croup, and *vice versa*.

In the treatment of croup, the physician, if he acts at all, must do so with promptitude and decision; the patient may die in six or twelve hours from the commencement of the stridulous respiration. As soon as the croupy sound is heard, and he is assured that the disease is not merely spasmodic but membranous croup, he should commence his treatment and persevere until the patient is better, or past relief.

(*To be Continued.*)

Correspondence.

Chloral Hydrate for Spasmodic Asthma.

Editors:

Without burdening your columns with a wearisome detail of cases, let me say that I have, of late years, used this agent with uniform success in the treatment of chronic asthma, during the spasmodic paroxysm.

I have been accustomed to give one-fourth grain doses of morphia sulph. in combination with two or three drachms of Hoffman's Anodyne and repeat every two or three hours until three doses are taken. Failing in this, as is frequently the case with chronic cases, I have resorted to the chloral in three grain doses in two or three drachms of tincture valerian and repeat every three hours, with the most gratifying success, a calm and prolonged sleep ending in complete relaxation of pulmo-

nic spasms, and copious expectoration invariably following, usually after one or two doses of the chloral.

A paper in the January number of the *American Journal of Medical Sciences* on chloral in this troublesome complaint suggests this note of confirmatory experience.

The last case in which I succeeded was one in which a homeopath of this city prescribed McMun's Elixir in unhomeopathic doses.

Respectfully,

C. H. HUGHES, M. D.

EDITORS:

Thinking the following would be of some interest to some of your readers, I herewith send you the case:

Mrs. M. *æt.* 26 or 28—mother of two children and in the eighth month of gestation—was gored by a cow, the horn entering the abdomen in the *linea alba*, two inches below the umbilicus, penetrating to the peritoneum, and producing laceration on each side extending to the crest of the ilium. I saw her in about forty minutes after the accident and found her in a condition of collapse from the shock, hemorrhage slight, edges of wound everted with large portions of cellular tissue protruding from the margin, which I removed, and closed the wound by the continuous suture and adhesive straps. The sutures were passed very deeply almost to the peritoneal surface (but in consequence of very extensive sloughing, it was found necessary to re-apply them, notwithstanding carbolated oil was used very freely). I prescribed p. ipecac. et opii, to be given as often as required when suffering, and to control the uterine tenesmus, which was so severe as to threaten premature labor. I was called to see the patient 8 or 10 hours later—found the bowels tympanitic, abdominal surface very tender; pulse small and quick, 130 to the minute; tongue dry and furred. I prescribed p. ipecac. et opii, every three hours, alternated with Seidlitz powders, which resulted in a gradual cessation of inflammatory symptoms, the pulse falling to eighty, and continuing so until convalescence was assured. Twelve days after injury I was called to see her, at which time she was delivered of a healthy child after a natural labor.

CHARLES H. NORRED, M. D.

Middletown, Logan Co., Ills., March 1st, 1872.

To the St. Louis Medical and Surgical Journal:

In the month of September last, I lost a case of threatened miscarriage, from the effects of two tablespoonsful of chloroform administered by the mouth, in mistake, by the husband of the patient.

Now, I have lost another patient—typho-malarial fever—from the effects of three powders, each containing 1 grain of powdered opium and 3 grains of pulverized ipecac compound, given in the course of fifteen minutes, in order to check diarrhœa, in violation of instructions.

It is unnecessary to give details as to the manner in which the fatal results were caused. That the fatal results were due to the drugs above mentioned, the one given in mistake for another preparation, and in the other case in disregard of the directions, is unquestionable.

The question is, how can such deplorable accidents be avoided? All bottles, etc., should be labeled, and all directions plainly *written*. Every conscientious physician, who has experience, of course appreciates to some degree, the importance of these injunctions; but I will here confess that in eighteen years practice, the importance of this matter has not appeared so imminent to me as it does now.

It may be that the charge of carelessness will be made against me for allowing it to become possible for the persons in charge of the patients to make such mistakes; and, although, I am not on trial, I will add that these things have happened in spite of all reasonable precautions, showing therefore the necessity for the greatest care in regard to these matters. This letter is written for the purpose of calling the minds of my professional brethren to the subject, that they may leave nothing undone to avoid such calamities.

Charles T. Reben, M. D.

Shelbyville, Ill., October 26, 1874.

Editors Journal:

At your request I submit the following as the mode of procedure in an operation as performed by myself, for radical cure in a case of inguinal hernia:

Having anæsthetized the patient, the skin just below the exter-

nal ring was invaginated into the inguinal canal, and kept in position by the fore finger of the left hand, while a strong curved needle, spear-shaped, and having the *eye in the point* armed with a silver wire, suture was introduced on one side of the invaginating finger at a point sufficiently below the ring to secure a good hold on the integuments immediately attached to the pubis, and was passed to a satisfactory depth, great care being taken not to penetrate the abdominal cavity, and the finger being the guide, the needle was made to traverse the abdominal wall in the direction of the columns, emerging at a point about two and a quarter inches from the point of entry. One end of the suture was then drawn through, the needle withdrawn and introduced at a corresponding point on the other side of the finger, and passed as before, emerging at a point corresponding with the first exit. The finger was then carefully withdrawn, leaving the parts invaginated; the ends of the suture were closely drawn and fastened over a suitable splint. Good union was obtained, and the patient had a speedy recovery. Cannot state the final result, as the case was lost sight of on account of the war.

In this operation, puncture of the peritoneal sac is avoided by keeping it well up before the invaginating finger, and holding the needle well to the outside of the canal.

Would submit further, that in repeating this operation, I would pare the surface to be invaginated, in order that when held firmly in apposition by the splint, which is well secured by having its lower end passed under the loop of the suture just below the external ring, while its upper end is secured as before mentioned, a firm and solid plug of double thickness may be obtained, and that the patient may not be afflicted with a constantly discharging cul de sac, which is the usual sequence of invagination in these cases.

Very respectfully,

H. Estes, M. D.

St. Louis, Mo., Oct. 3, 1874.

Proceedings.

SAINT LOUIS MEDICAL SOCIETY.

St. Louis, October 3rd, 1874.

Dr. Wood, of Cincinnati, was invited to speak of operations he had performed for removal of the uterus.

He reported the extirpation of a fibroid tumor requiring the removal of the uterus in a case in this city, which had proved successful, also three other cases that had been operated upon by him.

"The first case recovered readily—afterwards the development of phthisis pulmonolis caused death on the 64th day after the operation. A *post-mortem* examination proved that the operation was successful.

"The second case was a larger tumor than the first, being multiple, one being located behind the womb, throwing it up and forward. The entire mass was removed, and the case proceeded favorably so that she was able to be up again, but on the 27th day, she was taken ill, from which she died. A *post-mortem* showed a rupture of the bowel, which he considered accidental.

"The third case recovered without an untoward symptom—the tumor weighing four pounds.

"The fourth case occurred in this city—this patient has suffered more than any of the others.

"This case came under my notice three years ago, in Cincinnati, When I first saw her, she was unmarried, she afterwards, contrary to my advice, married and removed to St. Louis—she was markedly nervous—suffered from œdema of lower limbs—the circulation was interfered with. She began to show great enlargement of abdomen extending above the umbilicus. I advised the removal of the tumor, which was done on the 15th ult.; it was multiple, very vascular, weighing six pounds. We secured the pedicle with a strong silk ligature. Afterward she was in charge of Drs. Hodgen and Estes, of this city, who reported that the wound discharged about one ounce of pus a

day, which has at this time almost ceased. The ligatures came away at the usual time. This can, at this time, be regarded as a successful operation."

He said he did not remove the ovaries if he could help it. "The patient is left in better spirits and not like as if she had been castrated, for with the removal of the womb with the ovaries undisturbed, she is susceptible to the enjoyments of married life as other women are."

ST. LOUIS, October 10th, 1874.

Dr. Hodgen mentioned a case of the extirpation of the uterus together with the left ovary for interstitial fibroid tumor of the uterus, performed recently in this city by Dr. Wood, of Cincinnati, presenting the tumor and uterus as removed, for inspection, and described the method of operating as follows:

Dr. Wood began the operation with an incision 3½ inches long in the course of the linea alba, between the pubis and umbilicus, and cut through the centre tendinous structure of the wall, little to the left of the tendinous junction of the broad muscles. A small puncture was made through the peritoneum and enlarged on a grooved director. A sound was passed to learn if there existed adhesions—none found. The cut was then farther enlarged until it reached the umbilicus. The omentum was now carefully drawn upward and pushed into that part of the abdomen above the tumor.

The hand introduced into the abdominal cavity, assisted by pressure made on the sides of the abdomen, forced the tumor through the cut. It was then seen that the tumor involved the entire body of the uterus, and was about seven inches long by five in thickness, with the Fallopian tubes springing from its lateral parts, and the broad ligaments stretching downward to the vaginal junction. A needle without cutting edge was then passed through the broad ligament, low down and in immediate contact with the uterine neck, and tied so as to enclose the vessels approaching the uterus at a point of the Fallopian tube ¼ of an inch from the tumor. This ligature was drawn tightly and one end cut off.

The vessels of the uterus on the opposite side were secured in the same way. The Fallopian tube and broad ligament to-

gether with the vessels, were cut through between the ligatures and the uterine tumor on both sides. Pretty free hemorrhage occurred from the uterine ends of the cut vessels.

A needle armed with a strong double ligature was now passed into the neck of the uterus, close to the vesico-uterine fold of the peritoneum, and carried directly backward. The ligature was now divided, and the uterine neck tied in two parts—one end of each ligature cut off with a scissors, the uterus was cut through about ¾ of an inch above the ligatures, securing the stump, and this point proved to be at or a little above the internal os.

Some small vessels were found bleeding on each side at the point, from which the broad ligaments had been cut from the neck of the uterus; these were secured.

The blood in the pelvis was carefully sponged out.

The ligatures brought out the lower angle of the wound. The intestines allowed to fall down into the pelvis; and now the Doctor was careful to draw down and unfold the omentum and lay it like an apron over the intestines, folding the lower edge below the intestines, so that the stump had none of the abdominal viscera between it and the abdominal wall. Deep sutures of silk were now passed through the edges of the wound through peritoneum and skin, and the wound closed; some straps of adhesive plaster applied in the intervals of the sutures; a compress laid over the track of the cut; a bandage pinned snugly about the abdomen, and the patient transferred from the table to the bed. I only wish to remark that there as one part of the dressing that particularly attracted my attention. I refer to the extreme care taken by the Doctor in allowing the small intestines to fall naturally and without twist down into the space formerly occupied by the tumor. The care he exhibited in folding the omentum over the intestines and tucking its lower part between the stump and the intestines, and the very important matter (as it appeared to me) of allowing nothing to fall down between the end of the stump and the lower part of the abdominal wound, through which the ligatures were allowed to pass.

Dr. F. G. Porter, related the history of the case as follows:

Mrs. B., of St. Louis, *æt.* 43, of bilious phlegmatic tempera-

ment, married late in life—never had children, and never was pregnant.

Called about *three* years ago to consult me, for what she deemed to be rheumatism. Stated that she had been treated in one way or another for the preceeding two or three years without any good results.

Upon careful inquiry into the history of the case, I came to the conclusion that the difficulty was not rheumatism, but uterine trouble. To this decision she dissented, and even laughed at the idea of her having such disease. In due time, however, she consented to an examination, when it was found that she had a fibroid tumor of the uterus. An operation for its removal was not advised, but on the other hand she was desired to wait, and watch developments. From year to year the tumor grew in size, and her general health began to give way. This state of things continued to the fall of the present year, about which time it came to her knowledge that Dr. Wood, of Cincinnati, had in several instances successfully removed "fibroid tumors involving the loss of the entire uterus." She saw Dr. Wood in this city, and after due examination and consultation in regard to the case, an operation was determined upon, and the 6th day of October set for the operation. Two days prior to the operation, on the suggestion of Dr. Wood, one grain of calomel was given every three hours until twelve grains had been taken, and a saline purgative freely moved the bowels the evening before the operation.

Present and assisting Dr. Wood were Drs. Hodgen, Mudd, Estes, Atwood, Porter, and Dr. Wood, Jr. Chloroform was given to complete anæsthesia during the operation, after recovering from which, she complained of sickness at the stomach, and pains in the bowels, for which morphia was administered, with but little effect. On the following day, calomel, extract colocynth compound, and croton oil were given (Dr. Wood's prescription) in purgative doses, also injections, without effect, the nausea continuing with pain, and finally hiccup and death at 8 o'clock on the 9th—43 hours after the operation.

Dr. Edgar reviewed the subject as follows:

"It seems ungracious and *is* unpleasant to criticise any case that terminates unfortunately; particularly if it is by an operation struggling for recognition. Twenty years ago,

ovariotony was denounced by the body of the profession much as gastrotomy—for the extirpation of a uterine fibroid—is to-day. That operation had outlived the opposition, and is now recognized as a justifiable procedure; he did not doubt this would be the history of the latter operation, and that the distinguished surgeon from Cincinnati, Dr. Wood, is doing much to bring it forward in favor by the unequaled success attending his operations heretofore.

In this case, there may be room for apprehension that the Doctor, in his enthusiasm in the operation, omitted some of the data by which judgment is to be founded as to the fitness of a case for this operation. For instance, neither the size of the tumor, nor the degree of pain occasioned by the tumor, were such as to make the operation a *dernier resort*, as we have had a patient with as large, if not larger fibroid of the uterus, to become pregnant, go to the full period, bear a vigorous, healthy child, and both live to the present time, the fibroid persistantly increasing. Again, it does not appear from the character of the tumor, or its attachments to the walls of the uterus, that the os uteri could not have been dilated and the tumor enucleated. True, it might have been difficult to determine this fact *before the operation.* Finally, we must seriously question the wisdom of giving a drastic purgative—colocynth, croton oil, etc.—so soon—24 hours—after the operation to "re-establish peristaltic action." The Doctor having discovered in one of his fatal cases a "kink in the bowel causing obstruction and death," as he supposed, he seeks thus early to re-establish peristaltic action. A single observation of this kind is hardly sufficient to maintain a theory quite at variance with all experience as to the exciting causes of peritoneal inflammation.

If it is wise at this period to stimulate peristaltic action, we would greatly prefer *electricity* for the purpose. However this may be, the effect of a drastic purgative just after so extensive an operation involving the peritoneal membrane, must increase the danger of inflammation of that organ; also we may here suggest that by *drainage*, keeping the peritoneum free of blood and pus, as recommended by Drs. Storer, Thomas and others, the danger of peritonitis and septicæmia may be greatly diminished.

In the matter of statistics, Dr. Storer, in a publication on the

"removal of the uterus" gives a table showing one recovery in four operations; since and up to 1872, Dr. Gaillard Thomas enumerates *twelve* operations, *eleven* of which proved fatal.

Dr. Wood seems to have been more successful, having three recoveries out of four operations—before the present one—which leaves him three recoveries out of five operations "so far."

With regard to our therapeutic means for promoting absorption of such tumors, Thomas remarks in his last edition on "Diseases of Women," that those in greatest esteem are iodine, iodide and bromide of potassium, also that Hildebrandt reports seven cases in which improvement followed the subcutaneous injection of ergot. The theory is, that compression of the tumor by ergotic contraction, interferes with nutrition; fatty degeneration follows, which is susceptible of absorption. A description of this method in detail may be found in Thomas' last edition; he says he has adopted it in a number of cases, and is prepared to endorse it as one very promising of excellent results. L. H. LAIDLEY, M. D., *Secretary.*

LINTON DISTRICT MEDICAL SOCIETY.

This organization held its sixth semi-annual meeting at Fulton, on the 11th and 12th inst., and adjourned to meet at St. Charles, six months hence.

The meeting was an unusually interesting one, though the attendance was somewhat smaller than at Louisiana last year.

Papers of scientific interest were presented and discussed.

Dr. Arnold, of Columbia, read a valuable paper on apparatus for treatment of fractures of the thigh, embracing a description of Smith's, Hodgen & Clark's splints, and ingenious improvements for treating this fracture, by Dr. Elliot, of Rocheport.

Dr. Elliot contributed a paper on nursing sore mouth.

A paper of interest was also presented by Drs. Keith and Broome, of Moberly.

Dr. Rumbold, of St. Louis, also described his improved method for removing tumors from the throat, and treating the larynx and trachea.

Dr. Hughes, of St. Louis, contributed a paper on the dual action and vicarious function of the hemispheres of the brain, showing how atrophy, wounds, and disease, might involve one of the lobes of the brain without necessarily deranging the mind. He maintained that insanity never existed unless the two sides of the brain were morbidly touched, either in structural change or involvement of the circulation; and related some interesting cases of the delusion of double personality.

Dr. W. W. Macfarlane related his own personal experience about the disturbance of one side of his brain, during a severe attack of erysipelas, and spoke of the rarity of cases of real insanity, of the cases described by Dr. Hughes, in which the patient imagines himself to be two persons at one and the same time.

Dr. Broome asked the views of the Society on the propriety or impropriety of amputation after violent injuries, such as railroad accidents, during shock and before reaction, and also as to the propriety of giving stimulants. The general views of the Society were in favor of operation before reaction from the shock, and against giving stimulants.

Dr. Kerr, being called out by Dr. Hughes, related the experience of the New York surgeons.

The question as to invariable shortening of the thigh, after fracture of the femur, having been brought up, some remarkable cases of lengthening after this accident were related by Dr. French, of Mexico, and others.

Dr. Lee, of Mexico, read a paper on "life force," maintaining that the vital chemical theory of the organic processes was not tenable, which elicited an animated discussion, participated in by Drs. Hughes, Humphreys and others.

Dr. Miles contributed notes of a case of cerebro-spinal meningitis, occurring after child birth, which was discussed by Dr. Adams, of Danville, and others.

Some chalky concretions expectorated from the lungs of a patient were shown by Dr. Elliot.

The Society visited the Deaf and Dumb and Lunatic Asylums, and voted thanks for the courtesies shown by the able and gentlemanly heads of those institutions.

Dr. Smith and Dr. Hinde were in frequent attendance at the meetings, also Drs. Scott, Wilkerson, Herndon, T. A. Howard and Kerr—the latter was appointed to prepare a paper to be read at the next meeting.

Rev. Dr. Fisher, Prof. Lyle and I. W. Boulware, Esq., honored the meeting with their presence. The latter being called upon, made a felicitous speech, acknowledging his indebtedness to the profession and encouraging the Society in its objects.

The meeting was a pleasant and profitable one. May this Society live long to perpetuate the name of the immortal Linton, whose memory it was founded to honor.—*Fulton Telegraph.*

Reviews and Bibliographical Notices.

PSYCHICAL OR PHYSICAL. By Chas. H. Hughes, M. D., of St. Louis, from the *American Journal of Insanity*, for July, 1874. This paper was read before the Association of Medical Superintendents of American Institutions for the Insane, held in Nashville, Tennessee, in May, 1874.

The author in this essay has carefully and plainly elaborated his subject. In terse language he has stated scientific truths, has given facts known and demonstrated beyond all question as phenomena attending mental action—has pointed to the probable development in knowledge of mind, and indicated the possible—the limit of human achievement—the "hitherto shalt thou come and no further," in all psychical investigation. He evidently clearly appreciates the bearing and importance of the doctrine of molecular change, of retrograde metamorphosis in nerve element as a condition essential to, and as accompanying every psycological process, whether in normal or abnormal states of the brain or the mind, or of the brain, as affecting the mind. His reasoning and conclusions are based upon known physiological, chemical, and pathological changes in brain cells, is as sound and as incontrollable as the doctrine or the theory of molecular disintegration in muscular contraction. It is only an application of the important principle that elementary waste, combustion, death of cells, is the universal and unvarying condition of life. Throughout all organic nature in the

animal and vegetable kingdoms, all actions or functions are alike subject to, and in harmony with this law. He also, as we think, properly predicates this law as the only and fundamental one upon which all future development of mind will depend, and conjectures that it is not at all improbable that as the means and methods of research increase and multiply, the ideational, emotional and sensory cells, and their anatomical, chemical and isomeric states can be demonstrated. He further conjectures that science may find a limit or a line of demarcation beyond which it cannot go, the *ne plus ultra*, at least, of human ability, a line dividing the finite from the infinite. In these possibilities and probabilities, the writer goes no farther than Maudsley and other late writers, have gone in the proposition, that if scientific inquiry ever does prove thought to be material, this materiality will be so refined and attenuated in its nature as hardly to be described by any of our definitions, or the properties of matter as we conceive than to mean a form of matter so like spirit, that we can find no line of demarkation; or to give our author's own words, "that something which we all recognize as existent from all eternity, and to which we could perhaps give no better name than mind—the impress and image of God."

To one uninitiated in the revelations made, or being made by the microscope, the spectroscope, and by chemical analysis; these views may, and are very likely to be regarded as somewhat materialistic, but when we find our writer saying, "I mean the manifestation only of mind, and not the mind itself," we are bound to acquit him of any charge of materialism. Even Tyndall, in promulgating his views upon subjects akin to these, has not escaped being called a materialist—an atheist; but he says "his position is not against religion, but against received systems of theology, and that atheism offers to his mind no solution of the difficulties which he has encountered."

True religion and pure science can never come in conflict.

We trust that in the advance made within the past few years, we have promise of a solution of very many of the perplexing mysteries now agitating the minds of thousands of honest seekers after the pure unalloyed gold of nature's truths. C. W. S.

THE PATHOLOGY OF INEBRIETY. A lecture before the Medical and Chirugical Faculty of Maryland. By Joseph Parrish, M. D., President American Association for the cure of Inebriety, and Superintendent of Maryland Inebriate Asylum, Baltimore, Md.

This paper maintains that "*alcoholism* is really a symptom or series of symptoms which may be expressed by disorder of one or more of the viscera, or may manifest itself in cerebral disturbance." The author assumes that "in the germinal cell, besides the morbific element which is certain to progress with the evolution of its forces and structure, as the cell itself, is certain to develop into a human being and that when the being is completed it will possess all the characteristics which resided primarily in the cell," including not only the physiological but the pathological tendencies.

He entertains no doubt that "there is a diathetic condition which finds its *specific expression* in alcoholic excess." This is, we think, a little more than can be proved.

That alcoholic excess engenders changes in the nervous system which are entailed upon offspring and manifested sometimes in dipsomania, is true, but that dipsomania is the specific expression of alcoholic excess transmitted to offspring is not true. Some other form of disorder of the cerebro-spinal nervous system than dipsomania is just as likely to manifest itself in the children of drunken parents, such as epilepsy, chorea, mania, melancholia, dementia, imbecility, etc.

Alcoholic excess engenders an inability of nerve element manifest in the individual in delirium tremens or insanity, and in the offspring in a tendency to mental derangement which *may have* its specific expression in alcoholic or other excesses, or in the more marked forms of recognized mental disease.

Morel gives the history of a family through several generations, to show the verging of drunkenness into insanity, and then into sobriety accompanied with various forms of mania, in the third generation.

"If, instead of limiting attention to the individual, we scan the organic evolution and decay of a family, then it is made sufficiently evident how close are the fundamental relations of nervous diseases."

The author quotes from Dr. James Crichton Browne, Francis

Anstie, and other high authority, in support of the fact that drinking is often the result of disease, but thinks the facts are overstated in regard to intemperance being a frequent cause of insanity.

Nothing is so difficult to get at, as the actual causes of insanity. The circumstances observable in connection with an individual shortly preceeding a recognized outbreak of this disease are often the *result* instead of the *cause* of it.

Extravagance of various kinds not natural to the individual as the squandering of property, and indulgences in vicious and immoral habits and propensities, such as a sudden taking to excessive drink or venery in one who has hitherto sustained a good character for temperance or chastity, are often the result of a morbid irritability of nerve element preceding but a few weeks or months an unmistakable outbreak of well-defined insanity; the indulgence in these morbid promptings only serving to hasten the approaching climax of disease. It is thus that intemperance is often credited as a *cause* instead of the *consequence* of insanity.

On the other hand the desire to conceal the habit of intemperance often leads the friends of the patient to attribute the mental overthrow to other causes when alcoholic excess has been solely at fault.

"The loss of property, failure in business, business anxiety and perplexity, etc., which figure so largely in our asylum reports as causes of disease, are often given instead of the real cause. These latter often follow in the train of intemperance and immediately precede the aggravated outbreak which necessitates removal to the asylums, but they are not necessarily the real cause of the disease, where intemperance has co-existed. Alcohol and its compounds are capable of disturbing the digestive functions and interfering with the due nutrition of the brain, as we see every day in delirium tremens, and it is capable of changing the texture of the cerebral cells, and modifying the vascular condition of the organ.

Therefore there can be no doubt that alcohol is a potent and common cause of insanity, though precisely its relative place as compared with other agencies in the causation of this malady, observation has not enabled us, thus far, to satisfactority determine. A wide field is opened here which we have not time to

survey. To be convinced that alcohol is a fruitful source of mental disease we have only to bear in mind the fact that insanity is always the result of insufficient nourishment of the cells of the brain. There is always an impairment of the nutritive quality of the blood, or of the power on the part of the brain cells, to appropriate nutrition, the blood is either too poor for its purpose or poisoned by deleterious ingredients," or the brain cells cannot appropriate the requisite nutrition to sustain normal cerebration by reason of sanguinous pressure, or of traumatic or inherited, morbid cause;—some change, hereditary or acquired, in the chemical or isomeric states of the cerebral cells.

It seems to our author, that "when the insane diathesis is hereditary it may, in some cases, be modified and indeed substituted by occasional drunkenness. He has found "families which have been distinguished for generations by insanity or morbid eccentricity, to have members given to paroxysms of drunkenness, who do not become insane" He considers it "important" in a *medico*-legal sense to discriminate between insanity and drunkenness and hopes that a clearer distinction than is now recognized will be made, and make a plea for the diseased drunkard dominated by "a gastric demand which he cannot always suppress." We do not concur with him in regard to the gastric origin of the resistless cravings of the dipsomaniac. We think the imperious power to which he yields, is in the morbid cravings of the brain cells—an inability which alcohol changes or allays. The drunkard becomes a helpless slave to his appetite for strong drink only, when his brain is morbidly touched. So long as the solar plexus only is involved in morbid irritation, the appetite may be resisted, but when the will power is impaired or paralyzed as in the dipsomaniac, resistance seems impossible—the "tyranny of a bad organization" is here supreme.

With this view we have not been accustomed to regard alcoholism as "having its seat, in many instances, in the solar plexus or stomach brain," as our author maintains.

The author makes a distinction between cerebral and gastric alcoholic disease: thus, "in proportion as the constitutional affinity for alcohol with the new tissue, is stronger in one than in the other, so will the symptoms manifest themselves as more

prominently cerebral or gastric, hence," he says, "we see some inebriates in whom the mental symptoms predominate, and others in whom the head is more clear and the gastric region is the seat of suffering."

When the head is deranged before the stomach becomes injured by alcoholic excess, we would rather suspect the existence of the hereditary instability of nerve element which mental alienists denominate the insane neurosis.

We know of no special affinity of nerve tissue—either cerebral or gastric—for alcohol, though alcohol has an undoubted affinity for albumen and does actually harden the brain and denude the coats of the stomach when its use is long continued.

The paper is a good one, and will be of service in leading to a correct appreciation of the drunkard in the social scale and before the law. It treats upon a subject on which the profession is eagerly seeking for more light, and for which it will be thankful for every ray emanating from such a source. C. H. H.

THERAPEUTICS AND MATERIA MEDICA. A Systematic Treatise on the Action and Uses of Medical Agents, including their Description and History. By Alfred Stille, M. D., Professor of the Theory and Practice of Medicine, etc., University of Pennsylvania. Fourth edition. Thoroughly revised and enlarged. In two volumes. 8vo., pp. 963 and 976. Philadelphia: Henry C. Lea. 1874.

[For Sale by the St. Louis Book & News Co.]

For all who desire a complete work on Therapeutics and Materia Medica, for reference in cases involving medico-legal questions, as well as for information concerning remedial agents, Dr. Stille's is *"par excellence"* the work. For the information of those not familiar with the work, we may refer to a chapter on a prominent article, *e. g.*, mercury, and enumerate the themes discussed as follows: Description, officinal preparation, history, action of metallic mercury on animals and on man, effects of medicinal doses, mercurial fever, morbid action on the skin, eczema, mercurials, ulceration, salivation, mercurial purging, affections of the bones, affections of the nervous system, mercurial anæmia, mercurial cachexia, treatment of the effects of mercury, action of calomel, action of corrosive sublimate on man externally, action of red oxide, red sulphuret, white precipitate, the iodides of mercury, action of the cyanide of mercury on ani-

mals and on man, action of the yellow sulphuret on animals and on man, action of solution of nitrate of mercury, mode of operation, remedial employment, forms of mercurial treatment used in syphilis, inunction, mercurial fumigation, calomel, blue pill, iodides of mercury, corrosive sublimate, hypodermic use of mercury in syphilis, typhoid fever, yellow fever, bilious remittent fever; in inflammations, meningitis, acute hydrocephalus, pericarditis, peritonitis, rheumatism, pneumonia, acute hepatitis, chronic hepatitis, chronic functional derangement of the liver, jaundice, enlargement of the spleen, iritis, inflammation of mucous membranes, croup, dysentery, epidemic cholera, intestinal worms, metallic mercury in ilius, external use, diseases of the skin, ulcers, to prevent pitting in small pox, concluding with miscellaneous remarks. Each of the foregoing themes, concisely treated, extends this chapter to seventy-five pages.

Turning to the chapter on arsenic, we have given its description, combinations and history, action on plants, on animals, on man; its external application; post-mortem from arsenic, modus operandi, remedial employment in diseases of the skin; contraindications.

"1st. The use of arsenic is contraindicated where there is a feverish state of the system, a quick pulse, hot skin, etc.

"2d. It should never be given on an empty stomach.

"3d. It should never be given in increasing doses. This is a fatal and almost universal mistake.

"4th. The largest dose ever required is *five minims* of Fowler's solution three times a day, etc.

"Arsenic is not useful in syphilitic diseases of the skin; in ephemeral and exanthematous diseases; scabies. On the other hand, Dr. Hunt declares it not only useful, but essential, and almost unexceptionally successful, when properly administered, in all cases of chronic idiopathic affections of the skin; provided, always, and in all cases, that it be administered discreetly, perseveringly, and with such adjuncts—purgatives, alteratives, tonics, or eliminants, as the case may require."

Thus does this work partake rather of the character of an encyclopædia, or library of knowledge, than a simple treatise, hence invaluable as a work for reference, where less elaborate works do not supply the desired information. The

work being out of print, by the exhaustion of former editions, the author has laid the profession under renewed obligations by the careful revision, important additions, and timely re issuing a work not exactly supplemented by any other in the English language, if in any language. The mechanical execution handsomely sustains the well-known skill and good taste of the publisher.

SECTS IN MEDICINE. By John C. Peters, M. D.

This is an admirable address, delivered before the Medico-Legal Society of New York. The researches which the author has made into the history of the rise and progress of sects in our profession, is as thorough as it is interesting, and he could scarcely have been, in the same number of pages, more thorough or more entertaining. "The first and most important result of this research seems to be (to use the author's own language) that, though many sects and systems have arisen and flourished like parasites around and upon medicine proper, yet it has never been sectarian. It has always been inclusive, varied and catholic enough to embrace within itself all rational systems and all useful discoveries. The foundations of medicine are so broad that the most brilliant discoveries of its scientific votaries, the humblest additions of the common man, and the successful results of the merest accident, naturally take their place in its archives in strict proportion to their usefulness. It rejects nothing which is in accord with reason or enlightened experience, and profits even by the teachings of its bitterest enemies."

OUTLINES OF THE SCIENCE AND PRACTICE OF MEDICINE. By William Aitken, M. D., F. R. S. 12mo., pp. 593. Philadelphia: J. B. Lippincott & Co. 1874.

[For Sale by the St. Louis Book & News Co.]

The author of this book is so well known and highly esteemed by the profession in this country as well as in Great Britain, that it is only necessary for us to give notice of the completion of the work, and what the distinguished author announces to have been his purpose in its production. As we find it in the Preface: "It has been my object to give in the following pages a synopsis of the most elementary facts regarding the Natural History of diseases; especially, also, to

simplify the *Signs for Recognizing* them (*diagnosis*), and the *Rules of Practice* as to the *Prevention* and *Treatment* of them on which we can best rely,—believing that they are based on principles justified by *Reason*—from our experience and knowledge as to the causes, origin, progress, and termination of diseases.

"The work is expressly designed for the use of students; and therefore I have endeavoured to define *the subjects for study* as clearly as possible—to give the *Natural History of diseases* as concisely as possible—and to indicate as fully as space permits *the lines of treatment* by which remedies are to be applied for the Prevention or Curative management of individual diseases. Thus, I have attempted, (1.) To furnish such a digest of the Science and Practice of Medicine as may be an aid to the memory and a help to the student in preparing for examinations; (2.) to furnish a guide to him in acquiring a systematic and practical acquaintance with all those details which are now required to be learned according to the best modern methods of Clinical Observation. Instruction in these methods will be found in two places in the book:—*First*, Under the head of "CASE-TAKING" ample details are given as to the *methodical examination* and *questioning of patients*, and *recording the results* in a *Medical History* of the case; *Second*, Sections are given which treat of *the methods of Clinical Investigation* introductory to those diseases which are described in groups under the organs or systems to which they respectively belong—a method which I had previously followed in the several editions of my larger work on the *Science and Practice of Medicine;* to which this little work may serve as an introduction, bringing its scope, material, and bulk within such *graspable* and *portable* limits that the student may easily carry it about with him as a clinical guide and companion in the Wards of the Hospital, and an aid to his memory in the Lecture Room."

THE VISITING LIST FOR 1875. Twenty-fourth year of its publication. Philadelphia: Lindsay & Blakiston. Sold by all Booksellers and Stationers.

No physician can afford to be without this convenience for keeping his record of professional labor with accuracy and ease. It should be procured in time for use on the first day of the new year.

BOOKS AND PAMPHLETS RECEIVED.

HAND-BOOK OF PRACTICE. Employing Concentrated Medicine, as prepared by B. Keith & Co., New York.

ON SECTS IN MEDICINE. By John C. Peterson, M. D., New York, 111 Nassau street.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. XXV. Philadelphia. 1874.

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY. Twenty-fourth annual session. Indianapolis. 1874.

CLINICAL CONTRIBUTIONS. By M. H. Henry, M. D.

THE MEDICAL USE OF ALCOHOL AND STIMULANTS FOR WOMEN. By James Edmunds. New York National Temperance Society and Publishing House. 1874.

THE BREATH, and the Diseases which give it a Fetid Odor, with Directions for Treatment. By Joseph W. Howe, M. D. New York: D. Appleton & Co., 551 Broadway. 1874.

[For Sale by Gray, Baker & Co.]

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. von Ziemssen, Prof. of Clinical Medicine in Munich, Bavaria. Vol. I, Acute Infectious Diseases, by Prof. Liebermeister, of Tübingen, Prof. Lebert, of Breslau, Dr. Hænisch, of Greifswald, Prof. Heubner, of Leipzig, and Dr. Oertel, of Munich. Alfred H. Buck, M. D., New York Editor of American edition. New York: Wm. Wood & Co., 27 Great Jones street. 1874.

AN ILLUSTRATED CATALOGUE of the Medical and Scientific Publications of Wm. Wood & Co., New York.

A CONSPECTUS OF THE MEDICAL SCIENCES, comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine and Obstetrics, for the use of Students. By Henry Hartshorn, A. M., M. D. Second edition enlarged and thoroughly revised with 477 illustrations. Philadelphia: Henry C. Lea. 1874.

For Sale by the St. Louis Book & News Co.

A TREATISE ON FOOD AND DIETETICS, PHYSIOLOGICALLY AND THERAPEUTICALLY CONSIDERED. By F. W. Pavy, M. D., F. R. S. Philadelphia: Henry C. Lea. 1874.

[For Sale by the St. Louis Book & News Co.]

OUTLINES OF THE SCIENCE AND PRACTICE OF MEDICINE. By William Aitken, M. D., F. R. S. Philadelphia: J. B. Lippincott & Co. 1874.

[For Sale by the St. Louis Book & News Co.]

Extracts from Current Medical Literature.

Treatment of Gonorrhœa.

The following is an extract from a lengthy article by Dr. Haberkorn, in the *Berl. Klin. Wochenschrift*, No. 84, on the above subject:

Injections of permanganate of potassa, carbolic acid, sulphate of zinc, and other remedies, have all proved more or less insufficient in the treatment of gonorrhœa. After repeated experiments the author has found the sulphate of quinine to be a far superior remedy, being prompt in its action and nearly painless. He directs about a teaspoonful of the following mixture to be injected three times a day, retaining it for some time in the urethra:

℞	Quiniæ Sulphat.,	gr. xv
	Acid Sulphur, dil.,	℈j.
	Glycerinæ,	f℥vj.
	Aquæ,	f℥ij. M.

After three days a great improvement took place in all his cases. The expense of the medicine is covered by the rapidity of the cure. These results therefore justify a more extensive trial of this remedy.—*Medical Examiner.*

Tincture Eucalyptus Globules in Intermittent Fever.

The following results are summed up by Dr. Hirsch, (*Berl.*

Klin. Wochenschrift, No. 30,) as obtained from his experiments with the tincture in nine cases of obstinate intermittent fever:

1. In all the cases, after the use of the remedy for one or more days, the spleen diminished in size.

2. In six cases, three, at most four teaspoonfuls of the medicine were sufficient to prevent a return of the paroxysms. In one case only was the double quantity required.

3. Seven of the nine cases were cured completely; in the remaining two the remedy proved unsuccessful.

From these results Dr. Hirsch draws the conclusion that tinct. eucalypt. glob. is a remedy but little, if any, inferior to quinine in the treatment of intermittent fever, and that it will probably prove to be as valuable an antiphlogistic in the treatment of other fevers as quinine, digitalis, and veratrum.—*Ibid.*

Fissures in Ano Treated by Iodoform.

As a local anæsthetic it allays the spasm of the sphincter during defecation; while it favors cicatrization by neutralizing the irritating effects of fæcal matter which may remain on the ulcerated surface. It is used as an ointment, one part to three parts of lard, applied twice daily, on a small piece of charpie. Cure may be expected to follow within twenty days.—*Ibid.*

Nelaton's Method of Resuscitation from Chloroform Narcosis.

This method of treatment is based upon the hypothesis that death is due to cerebral anæmia, and consists in inverting the body, in order that by force of gravity the blood may be restored to the brain, while the respiration and circulation are renewed. Several striking cases of apparent death from chloroform narcosis have recently been reported in the *British Medical Journal*, in which resuscitation was accomplished by long-sustained inversion. The fact that no death from chloroform has been known to occur during labor is explained in this way: that in active labor, there can be no cerebral anæmia, inasmuch as every pain throws the blood violently to the head, producing congestion of the cerebral blood-vessels, thereby counteracting the tendency of the chloroform to produce a contrary condition.—*Boston Med. and Surg. Journal.—Examiner.*

Sulpho-Carbolate of Soda in Variola.

Carbolic acid and sulphate of soda, producing chemically a

sulpho-carbolate of soda, the proper dose of which is five grains in glycerine and water, by a Montreal physician, has been found useful in variola, cutting short the disease in seven to ten days.

The same remedy has been used with gratifying success in typhoid fever, scarlatina, diphtheria, etc. A solution of carbolic acid, sulphurous acid and glycerine is also recommended for pitting in small-pox, also a common sulphur match dipped in a solution of carbolic acid and applied to each pustule, may prevent pitting.—*Medical Record.*

Use of Ergot in Purpura Hæmorrhagica.

The Journal of September 5th, contains a communication from Dr. W. L. Lane, of Dunfermline, referring to the successful treatment of a case of purpura hæmorrhagica, by the hypodermic injection of ergotine. This drug, he states, he was induced to use because it contracts the involuntary muscular fibre, and hence influences the small arteries, and is indicated in purpura hæmorrhagica, because this disease is a disease of the capillaries, and not of the blood. as generally stated. This communication is interesting and important, as it serves to prove three things. 1. The action of ergot is upon the involuntary muscular fibre, as stated by Mr. Mavor and myself in our work on the *Specific Action of Drugs* (p. 17). 2. The physiological action of a drug is an index to its therapeutic value (see preface). 3. The physiological action of a drug is the same in man as in animals, both in health and disease; for Messrs. Mavor, of Park street, have for some considerable time past been in the habit of treating purpura hæmorrhagica in the horse with ergot, being solely induced to do so by their knowledge of the physiological action of this drug, and the belief that they had to deal with a disease of the capillaries—a knowledge obtained by repeated experiment.—*A. G. Burness, M. B., C. M., Green Street, Grosvenor Square, British Medical Journal.*

A Good Cement.

A good cement for attaching paper labels to metal surfaces is composed of ten parts tragacanth mucilage, ten parts honey, and one part flour.

Criminal Abortion.

Dr. Geo. W. Emery, in the Chicago *Medical Journal*, October number, on criminal abortion, advises that we as a profession urge an alteration in the code of laws designating this as a "high misdemeanor," and that it be placed in the list of *capital crimes*, with the same penalty. And to arrest the sale of nostrums, the sole object of which is to assist in effecting abortions, have inspection by a public officer of wholesale and retail drug houses, and have all medicines of this description confiscated and destroyed, all cost of suit, etc., charged to the house found offering such medicines for sale.

Typhoid Fever.

Dr. W. T. T. Montgomery, of Chicago, in the October number of the Chicago *Medical Journal*, collates 112 cases of typhoid fever treated by himself during the months of September, October and November, 1872, in Cook County Hospital. With regard to symptoms, epistaxis occurred in 23; diarrhœa in 77; consumption in 10; rose spots in 50; blue spots in 2. In all the cases particular attention was given to the temperature, pulse, and respiration.

By way of complications, delirium occurred in 49; deafness in 11; softening of the cornea in 1; parotetis in 3; intestinal hemorrhage in 3; peritonitis in 2; died 20. In aid of prognosis, he deduces the following: if the thermometer does not rise above 105° during the second week and begins to decline by the beginning of the third week, it is favorable; when it rises above 106° and is maintained above 105° the third week, it is very unfavorable; if the temperature rises above 107°, the case is almost surely fatal. Convalescence cannot be considered established until the temperature has reached the normal standard in the evening; quinine in five grain doses, three times a day, reduced the evening rise of temperature.

In this disease a pulse of 120° is about as unfavorable as a temperature of 106°, and one of 130° as a temperature of 107°.

The cool bath was tried in two cases, when the temperature reached 107°, bath at 90° reduced the temperature to 101°, both cases died in the second week—both bad cases from the first. The medicine uniformly prescribed from the time the diagnosis was settled, was:—

℞ Potassæ Chloratis, ʒii.
Acid Muriatic Dil., ℥ss.
Syrup Simplex, ℥ss.
Aqua, ʒiv.

M. S. Tablespoonful every 3 hours in water. When they require stimulating, the following:—

℞ Strychnia Sulph., gr. i.
Acid Nitric, ʒi.
Syrup Simplex,
Water, āā ʒii.

M. S. A teaspoonful every 6 hours.

The crowded condition of the Hospital did not admit of *pure air*.

Hypodermic Use of Quinine.

Dr. A. A. Woodhull, in the New York *Medical Journal*, November number, reports three cases of the hypodermic use of quinine, prepared according to the formula of Dr. Leute. First case, effect about the same as if administered orally. Local effect at each puncture, death of the skin and its discoloration over a spot about a fourth of an inch in diameter. The punctures were made in the hips laterally, it requiring three punctures for a drachm of the solution. In the second patient, the punctures produced sloughs averaging an inch in diameter. Third case, six drachms were injected during four days, fourteen of the injections were followed by local sloughs like the others, and continued to trouble for six weeks after. On account of these results this method was abandoned.

Morbid Impressions upon the Nervous System. The Primary Cause of Disease. By J. P. Creveling, M. D.

Attention is called to the fact that irritation of the base of a nerve will produce both functional and organic changes of the parts to which it is distributed, and that irritation or disease of those parts may produce structural changes of the base of the nerve, due to transmitted impression. He asks, may we not account for many of our low congestive fevers on this basis? Impressions made primarily on the nerve centers, thence transmitted to the parts to which these nerves are distributed, deranged function ensues, followed it may be by organic changes.

If over-stimulation of a nerve will produce hyper-nutrition of the parts it supplies, why may not peculiar morbid impressions produce their own characteristic lesions?

Many skin diseases are of nervous origin. Some believe them of rheumatic origin, but what is the origin of rheumatism? Electricity is one of our most potent remedies, and is applied to the nerve centers and to the diseased parts. Local remedies act by soothing the irritated nerve ramifications.

Who can explain why a dose of opium causes itching of the skin? Pathological truth is being carefully and deliberately sought for. *Authority* no longer holds spell-bound the intellectual and thinking portion of the profession. *Logic* is accepted when based on scientific facts and observations.

Injection of Syphilitic Semen.

Dr. Isaac Smith, Jr., in the *New York Medical Journal*, November number, reports a case which he thinks clearly demonstrates the possibility of semen from a male who has had syphilis, containing the germs necessary to give rise to the disease in a woman, provided she is not *enceinte*, by such intercourse. The case reported is to the point, but further observation is necessary.

Guaiacum in the Treatment of Acute Tonsillitis.

Dr. R. J. Fritzinger (in the *Reporter* of Nov. 7th) recommends the following:

℞	Potass. Chlor.,	ʒj.
	Spts. Nit. Dulc.,	℥ss.
	Tinct. Guaiac,	℥iss.

Ft. Sol. A teaspoonful every 3 hours, in sweetened water.

As the local action plays a prominent part in the cure, it always should be swallowed slowly. The use of astringent gargles should not be omitted.

Thread Worms.

It is said that the oxyuris vermicularis, or thread-worm, may be readily dislodged from its favorite habitation in the rectum, by the injection of from two to three ounces of ol. morrhuæ, repeated once or twice.—*Boston Journal of Chemistry.*

Acute Bright's Disease.

Dr. E. P. Hurd, in the *Medical and Surgical Reporter*, November 7th, concludes a communication on this disease as follows: "Of all the different modes of treatment, the *warm bath*, or vapor bath, is one of the most speedy and useful remedies, causing profuse perspiration and relieving renal engorgement by derivation to the skin. As for other diaphoretics, I have seen little benefit from any of them. That diuretics are really not contraindicated, but do good, is, I believe, the opinion of most practitioners. Of these, the most serviceable is undoubtedly digitalis."

Relations of the Heart's Action to the Nervous System.

The nature of these is but very imperfectly understood. The researches of the brothers Cyon have shed much light upon them. For their practical value we quote a few points from a very interesting lecture by one of the brothers, Cyon, *Revue Scientifique—Chicago Journal of Mental and Nervous Diseases*, January, 1874.

"The heart contains in its substance two kinds of nerve ganglia. One is connected directly with the muscular fibres of the heart, and communicates to them a motor impulse. The other acts on the muscular fibre only through the motor ganglia. Its function is to modify or prevent the transmission of motor impulses from the motor ganglia to the muscular fibres of the heart. Hence they are called regulator ganglia. Thus they can cause the heart to discharge itself in a given time, either by a few and powerful, or frequent and feeble pulsations. Any influence, chemical or otherwise, which excites one kind of these ganglia paralyzes the other, and *vice versa*. Thus oxygen and ascending variation of temperature excite the motor and enfeeble the regulator ganglia. Carbolic acid and descending temperature paralyze the motor and excite the regulator ganglia.

"Of the nerve fibres which act from the brain to the heart there are two kinds. First, those which come through the sympathetic and terminate in the motor ganglia. Second, those which come through the pneumogastric and terminate in the regulator ganglia. The excitation of these nerves only increases the action of the ganglia in which they terminate. Thus excitation of the pneumogastric slows the pulse and

augments its force, while excitation of the sympathetic increases the number of pulsations but diminishes their power. There is one fundamental difference to be remembered, viz., the regulator fibres of the pneumogastric are in a state of tonic excitation while the accelerator nerves of the sympathetic are only called into action by certain conditions. Different substances act differently on these two kinds of nerves. Oxygen and rising temperature excite the accelerators, carbonic acid and falling temperature act on the regulator nerves. Further, the brain, by means of the nerves which terminate in the muscular coats of the small arteries, greatly modifies the circulation. Excitation of these nerves diminishes the volume of the small arteries and so in the capillaries, while their paralysis increases it. All the centrifugal nerves thus alluded to have a common object, to modify the activity of the heart and distribute the blood in the different organs of the body according to their infinitely varied needs or conditions. These needs are so varied that considerable changes in the circulation are constantly needed in all parts of the body. The perfection of this apparatus is seen in the fact that though causing infinite variations in the number and force of the cardiac contractions it makes no change in the amount of mechanical work the heart ought to perform in maintaining the circulation.

"These nerves, which pass from the brain directly to the organs of the circulation, may be excited, first, in the brain, or second, by excitations of the sensory nerves, which are reflected on centrifugal fibres. The reflex excitation may either increase or diminish their activity. Thus it will be evident how an irritation of the sensitive nerves can modify the amount of blood which shall circulate through a given part of the body. To illustrate: Suppose there be a strong contraction of the smaller arteries, gradually the blood will accumulate in the heart, so as to incur the danger of rupture or stoppage; but by the nervous arrangement described it has provided a most perfect safety-valve to meet this emergency. Thus as the heart receives an excessive quantity of blood, its two sensory nerves are excited by the dilatation. This excitation, being transmitted to the brain, paralyzes the vaso-motor nerves. This is followed by a dilatation of all the small arteries and diminution of blood

pressure, during which the heart easily returns to its normal work, having escaped all danger.—*Detroit Review of Medicine.*

Principal Cause of Constitutional Derangement in First Dentition.

Dr. J. Hardman read a paper before the Iowa Dental Society on the above subject, in which he puts forth the following views:

"We maintain that the resistance offered by the gums is of but small moment. That the true cause arises from the pressure upon the nerve or pulp is certain; and that this pressure comes from an indirect way, namely, by the growth of the lower or root part of the tooth being too fast, so to speak, when compared to the osseous covering over its crown, thus holding it back, and itself thereby pressing unduly and irritating the pulp."

"This, then, is our theory, taking a cuspid as a case for illustration. The point is readily felt by the lancet in the hand of the surgeon; but his crucial incision in the soft tissues of the bone has but little effect upon the attending constitutional symptoms, and why? To answer, let us seek from whence this undue pressure.

"The point of the tooth having penetrated the bony surface, a large amount of resistance proper from below is taken off, hence allowing a greatly increased force to be exerted upon the borders of the socket opening, and this force or pressure being too great, is an irritant upon the portion of the capsule surrounding this opening, creating inflammation in it, and thus arresting absorption, holding the tooth, in other words, immovably fixed. While thus stationary, the growth of the tooth below still going on, must, it is obvious, produce indirectly, pressure upon the pulp; and this is the whole mystery. Undue pressure augmented by the irritation and inflammation arresting absorption, fixing the tooth in the socket, while the steadily increasing tooth surely produces the pernicious pressure upon the pulp; and this, in turn becoming by this pressure, irritated and inflamed produces in remote organs, through the intimate nervous union before referred to, the extensive sympathetic disturbance so often met."

A word as to the mode of local treatment in first and difficult dentition. The condition of the soft parts over the tooth are of little importance save in diagnosis. "But the point

in treatment, is to relieve the tooth from its strangulation in the bony casement, and thus materially and effectually relieve the pulp from the undue pressure. To do this, we would suggest that with a spear-shaped chisel, or lancet-blade, the portion of the alveolus overlying and surrounding the impinged portion of the tooth be heroically broken up."

"But we would insist here, that to be effective, the surgeon should not hesitate to remove or break up the bony casement freely down or nearly to the largest diameter of the crown."—*Missouri Dental Journal*, June, 1871.

Remittent Fever.

In Roberts' Practice of Medicine, just published, we find the following on this subject:

The malarial fevers of hot climates often assume a remittent type, there being irregular exascerbations and remissions, the latter being more distinct if the fever is very intense. They vary much in their severity, and have received many local names. There is no distinct limit between this class of fevers and intermittents, both being due to the same cause, but this is aided by a high temperature in producing remittent. One type sometimes changes into the other.

Concerning the treatment, it is important to attend to hygienic conditions, and to have good ventilation. During the hot paroxysm, cool drinks should be given, and if necessary, cold applied to the head. External application of cold, in one of the ways described when speaking of "fever" is most valuable. Vomiting must be checked.

As soon as the remission occurs, *quinine* must be given in 10, 15 or 20 grain doses every two hours; if the stomach rejects it, enemata must be employed. This remedy is to be administered until the system is saturated with it, and evidences of "cinchonism" arise. It is also to be used should any complications arise. A compound named Warburg's tincture has gained much repute in the treatment of remittent fever.

All antiphlogistic remedies are to be deprecated, as well as the use of calomel, except as an aperient. It is desirable to clear out the bowels. Bland nourishing diet is necessary, and stimulants are largely required.

Whisky as an Antiseptic Dressing. By J. L. Suesserott, M. D.

In fulfilment of a promise made to Prof. Wm. Pancoast at the meeting of the Pennsylvania Medical Society at Carlisle, in June of last year, I desire to place on record my testimony as to the value of the above-named agent. And, lest I might be misunderstood as claiming priority in its use, I will state that in the *Glasgow Medical Journal* for February, 1870, Dr. D. Blair recommended the use of whisky as a surgical application, and gave his method of using it, as follows:

"To remove the foreign substances or clotted blood, the wound is first washed thoroughly with strong whisky; it is then closed with stitches if necessary, again bathed with whisky, and covered with a rag and bandage, both saturated with the same fluid; and, finally, all is enveloped in gutta-percha tissue or oiled silk, and directions given to the attendants to wet the bandage from time to time with the spirits. As a rule, the first dressing is not disturbed for three or four days, and afterwards it is changed every day, or every second day, according to circumstances. The principal thing to be attended to is to have the bandage kept wet with the whisky,—but not *too wet*, or it will impede the progress of the cure. I have never seen *much* sloughing, and I have not once seen erysipelas occur in wounds treated in this way; probably because septic germs, if they exist at all, are not numerous in our hyperborean regions."

After giving the history of two or three cases, the Doctor adds, "I have also used whisky as an application to bed-sores. When fever occurs epidemically in country districts and villages, especially in the Highlands, it generally causes a panic among the inhabitants. The dread of contagion is so great that occasionally no one will venture to undertake the duties of nurse. Under these circumstances bed-sores are of frequent occurrence. I have seen more than one case in which the os sacrum and coccyx were exposed from sloughing in typhus, and yet the patients recovered. The bed-sores were treated with linseed and oat-meal poultices, mixed with whisky, until the slough separated; then whisky lotions were applied.

"In cases of chronic and scrofulous abscess, I have used whisky as an injection, and find that it checks the discharges and hastens the cure. In a case of scrofulous abscess of the hip-

joint, I attribute the recovery of my patient to its having been used in this way. The pain and hectic before and for some time after the abscess was opened, caused so much prostration that I had slight hopes of my patient's recovery. I persisted, however, in using the injection two or three times daily, bathed the whole limb often with spirits, and kept it wrapped in cotton-wadding and a bandage. The stomach for a time would not tolerate solid food of any kind, and even beef-tea provoked nausea. Notwithstanding, in an incredibly short time my patient rallied, and I had the pleasure of seeing him walk well, although the joint continued somewhat stiff.

"In a singular case of abscess situated beneath the muscles in front of the abdomen, which opened at the umbilicus, I was highly pleased with the result gained by these injections. The discharge obstinately continued, although I perseveringly applied for a considerable time poultices and lotions of different kinds. At last I resolved to inject with strong spirits, but, from the peculiar situation of the abscess, and fearing inflammation might supervene, I used it very cautiously at first; but, no unfavorable symptoms having followed the first application, by degrees it was used more freely—two or three syringefuls at a time repeated twice or thrice daily. In a few days there was a marked improvement, and soon the discharge ceased completely, and the patient is now well."

I trust I may be pardoned for quoting so largely from Dr. Blair, but in no words of mine could I more fully convey the results of my own experience or give stronger testimony as to the value of what to me would now be an almost indispensable agent.

In my opinion, the antiseptic properties of whisky are not all the virtues that it possesses. The gentle stimulation to the granulations on the one hand, and its cooling action by evaporation on the other, undoubtedly aid in a material degree in bringing about repair. Dr. Blair neglected to state that it is only the first application that is objected to or is in any appreciable degree felt by the patient. If the compress or bandage is kept moist with the spirits, a very grateful feeling is produced; and in case where even considerable laceration has occurred, healing by *first intention* may be confidently expected.

I could recount numerous cases that would bear me out in this assertion, but will let a few suffice. * * *—*Medical Times.*

Demarquay on Foreign Bodies in the Œsophagus.

At the meeting of the Société de Chirurgie of Paris on October 14, M. Demarquay communicated particulars of two cases in which children had swallowed coins. In the first case, M. Demarquay immediately detected the presence of a foreign body in the œsophagus, and performed œsophagotomy. He ascertained that the coin had perforated the œsophagus and had fixed itself in the perforation, whence it was easily extracted. The child died, however, and at the necropsy M. Demarquay found a retro-œsophageal abscess which had discharged itself into the right pleural cavity. In the case of the second child, who had also, according to his own account, swallowed a coin, neither M. Demarquay nor MM. Denonvilliers and Nelaton, who assisted him, could feel any obstruction. The latter surgeons hoped that the intruder had ended by finding its way into the stomach, and had been expelled in the natural way. But after some time violent symptoms of chest-disease made their appearance, and, the child having died, a purulent collection was found in the right pleural cavity. It was evident that the origin of this collection had been a retro-œsophageal abscess produced by the foreign body, which had opened into the pleura.

Struck by these facts, M. Demarquay instituted some experiments on aminals, particularly dogs, by introducing into and fixing different kinds of foreign bodies in their œsophagus. When, after some time, the animal was killed, M. Demarquay invariably found a retro-œsophageal abscess opening into the pleural cavity. This identity of results in men and animals is very remarkable; and M. Demarquay came to the conclusion that, in consequence of the rapidity with which foreign bodies produce ulceration and perforation of the wall of the œsophagus, they must never be allowed to remain in that canal, and that it is desirable to perform œsophagotomy very quickly.—*Lond. Med. Record.*

Infant Diet.

At a recent medical congress held at Marseilles, the majority of the doctors present agreed that the best possible diet for children was oatmeal porridge and sweet milk.

Editorial.

With the issue of the present number, the JOURNAL closes the thirty-first year of its publication; also this number completes the thirty-first volume.

Our associate, Dr. H. Z. Gill, having *removed from the city a year and a half ago*, virtually ceased at that time to share the editorial labors; hence his name will be omitted from the title page with the present issue; with assurances however, that his interest in the prosperity and usefulness of the JOURNAL will continue unabated.

Our readers are doubtless aware that the new post-office law (requiring all postage to be *prepaid*) goes into effect on the first of January *proximo*. We have determined to assume this additional expense, and to furnish the JOURNAL *at the old subscription price* ($3) to all subscribers who *pay promptly*.

When the financial panic occurred over a year ago, we were about to send bills to all in arrears for subscription, but did not, fearing small bills might share the same fate as large ones. We held them (when against subscribers out of the city) for a more propitious season (as the doctor too often does with his bill for services, until he loses it). The present year having been "distressingly healthy," can hardly be considered propitious for paying bills, still as the sums are small and comparatively unimportant, taken separately, and as the aggregate amount *is important to us*, and would enable us to make contemplated improvements and additions to the JOURNAL which all would appreciate—every dollar realized from subscription or otherwise the past three years having been expended in the publication—we trust our friends will appreciate the situation, and make prompt remittance.

We cannot allow this occasion to pass without returning sincere thanks to the numerous contributors to the pages of the JOURNAL in past years, and earnestly soliciting a continuance of like favors in the future, promising on our part that its pages shall be wholly devoted to the interest of the Profession at large, and the advancement of medical and surgical practice in particular.

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. Wislizenus, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 P. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

OCTOBER, 1874.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	52.0	82.3	18	48.5	67.5
2	57.0	75.0	19	48.0	70.5
3	51.0	72.0	20	48.5	73.0
4	51.0	72.0	21	55.0	75.5
5	51.5	74.5	22	58.5	65.0
6	60.0	71.0	23	565	64.5
7	54.5	65.5	24	51.0	69.0
8	55.5	67.0	25	53.5	76.0
9	52.0	72.5	26	60.5	81.5
10	51.0	74.5	27	61.5	76.5
11	52.0	63.0	28	64.5	82.0
12	38.0	56.5	29	46.0	55.0
13	3 .0	56.0	30	36.0	50.0
14	39.5	57.0	31	31.0	44.0
15	49.0	60.0			
16	49.5	56.0	Means	50.5	66.9
17	48.5	68.0	Monthly Mean 58.7		

Quantity of rain: 0.85 inches.

Mortality Report.—City of St. Louis.

FROM OCT. 23, 1874, TO NOV. 21, 1874, INCLUS.

Abscess of Liver	1	Dysentery	7	Heart dis. not defi'd	2	Summer Complaint	3
" Lung	1	Diarrhœa	10	" Fatty dege'n of	2	Spina bifida	1
Accident	9	Dropsy	10	" Valvular dis. of	2	Suicide	4
Alcoholism	2	Enteritis	9	Hepatitis	7	Shock	1
Asthma	2	Entro-colitis	1	Hydrocephalus	2	Trismus	14
Atelaetasis	1	Endo-carditis	1	Hemorrhage	2	Tetanus	1
Atrophia	1	Epilepsy	2	Inanition	5	Tabes mesenterica	1
Brain, cong. of	5	Erysipelas	1	Ileo Colitis	1	Typhomania	1
" inflam. of	1	Fever, Congestive	3	Jaundice	1	Ulceration of stom.	1
" soft'g of	1	" Typhoid	11	Lungs, cong.	4	Vomiting in Preg.	1
Bronchitis	8	" Typhus	1	Laryngitis	2	Variola	95
Bright's Disease	3	" Scarlet	16	Marasmus	19	Varioloid	2
Cirrhosis of liver	3	" remittent	1	Meningitis	10		
Consumption	39	" Inermittent	1	Meningitis Cer. Sp.	5	Total	443
Convulsions	24	" Puerperal	1	Miscarriage	2	Stillborn	53
Croup	6	" Catarrhal	1	Old Age	6	Under 5 years	238
Congestion Bil.	1	" Bilious	1	Paralysis	2		
Diphtheria	6	Gastritis	3	Pneumonia	29		
Debility	12	Gastro-enteritis	2	Scrofula	1		

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Ferro-Phosphorated Elixir of Calisaya Bark with Strychnia. This preparation contains one grain of Strychnia added to each pint of our Ferro-Phosphorated Elixir of Calisaya Bark, greatly intensifying its tonic effect.

Ferro-Phosphorated Elixir of Calisaya with Bismuth, containing eight grains Ammonia-Citrate of Bismuth in each tablespoonful of the Ferro-Phosphorated Elixir of Calisaya Bark.

Elixir Phosphate Iron, Quinine and Strychnia. Each teaspoonful contains one grain Phosphate Iron, one grain Phosphate Quinine, and one sixty-fourth of a grain of Strychnia.

Ferro-Phosphorated Elixir of Gentian, containing one ounce of Gentian, and one hundred and twenty-eight grains Pyrophosphate Iron to the pint, making in each dessert-spoonful seven and one-half grains Gentian to two grains Pyrophosphate Iron.

Elixir Valerianate of Ammonia. Each teaspoonful contains two grains Valerianate Ammonia.

Elixir Valerianate of Ammonia and Quinine. Each teaspoonful contains two grains Valerianate Ammonia and one grain of Quinine

Ferro-Phosphorated Wine of Wild Cherry Bark. Each fluid-drachm contains twenty-five grains of the Bark, and two grains of Ferri-Pyrophosphate.

Wine of Pepsin. This article is prepared by us from fresh Rennets and pure Sherry Wine.

Elixir Taraxacum Comp. Each dessert-spoonful contains fifteen grains of Taraxacum.

Elixir Pepsin, Bismuth, and Strychnine. Each fluid-drachm contains one sixty-fourth of a grain of Strychnine

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Cod-Liver Oil, with Iodine, Phosphorus, and Bromine. This combination represents Phosphorus, Bromine, Iodine, and Cod-Liver Oil, in a state of permanent combination, containing in each pint: Iodine, eight grains; Bromine, one grain; Phosphorus, one grain; Cod-Liver Oil, one pint.

Cod-Liver Oil, with Phosphate of Lime. This is an agreeable emulsion, holding three grains Phosphate of Lime in each tablespoonful.

Cod-Liver Oil, with Lacto-Phosphate of Lime.

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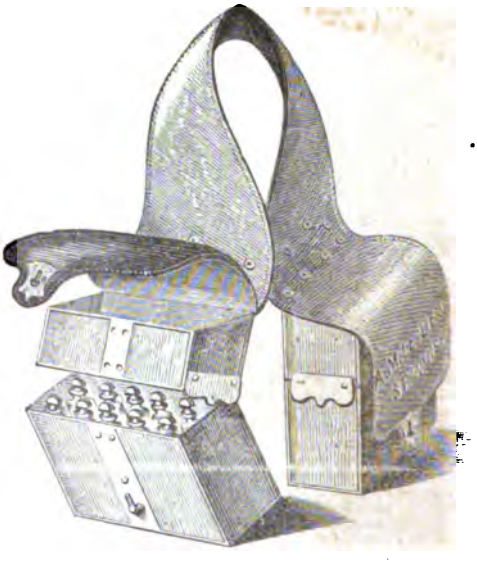

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